““# THE JOURNAL

OF THE

JAMAICA AGRICULTURAL SOCIETY.

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BOARD OF MANAGEMENT.

THE USUAL MONTHLY MEETING OF THE BOARD OF MANAGEMENT OF THE JAMAICA AGRICULTURAL SOCIETY was held at the Office of the Society, 82, Hanover Street, on Thursday, 20th June 1907, at 11.40 a.m.; present: Robert Craig, Esq., in the Chair, Hon. Geo. McGrath, Messrs. C. A. T. Fursdon, J. Shore, J. R, Williams, and the Secretary, John Barclay.

The Secretary read a letter from His Excellency the Governor regretting that owing to the sitting of the Legislative Council to transact most urgent business, he could not be present at the meeting; and for the same reason six other members of the Board were absent; one was ill and two were off the Island.

Mr. E. W. Muirhead sent a letter intimating that he would be absent from the Island for two months.

Minutes.—The Secretary submitted the Minutes as printed for the Journal, and these were approved.

Government Veterinary Surgeon.—The Secretary submitted the following letters from the Colonial Secretary's Office:—

No. 4210-2491. 2nd May, 1907.

With reference to your letter dated the 21st March, last, I am directed to ask if the Agricultural Society are yet able to make any recommendation for filling the vacant post of Government Inspector of Stock.

No. 4832-5964. 21st May, 1907.

I have the honour to intimate to you, for the information of the Jamaica Agricultural Society, that the Acting Governor appointed Mr. E. L. Tavares, Veterinary Surgeon to act temporary as Government Inspector of Stock in the room of the late acting Inspector, Dr. R. Rain, on the usual terms of remuneration, viz., the fees paid by the Importers of Stock under the Cattle Quarantine Law.

2.---I am to say that the necessity of appointing Mr. Tavares arose from the fact that the Hon. B. S. Gosset was expecting two Bulls on the 13th inst. from Porto Rico, and required the services of an Inspector.

No. 5131-5343. 31st May, 1907.

I am directed to acknowledge the receipt of your letter, No. 367, of the 25th

ult., conveying the recommendation of the Board of Management of the Jamaica Agricultural Society, that the Government should provide for the employment of a Veterinary Surgeon at a maximum salary of £300 per annum, with fees, and who should possess the qualifications recommended by the Board of Agriculture and Fisheries of the United Kingdom.

2.---In reply I am to state for the Board's information that the question is one on which the Governor would desire fuller guidance before he could decide whether any financial provision for the purpose should be proposed, that in any case it does not press for early decision, as the Agricultural expenditure for the current year has been settled, and that His Excellency hopes to have an opportunity of discussing the matter with the Board at some future date.

Also note from Mr. Ernest Verley, as follows :—

I shall be glad to know from you if it is the intention of the Society to look after getting out a qualified Veterinary Surgeon at once, for if not I will look after one when I am in England.

The Secretary said that in reply to Mr. Verley he had explained what the Society had done in the matter, and asked him to do nothing without first communicating with him as Secretary.

The Secretary also submitted scales of fees charged by the Government Veterinary Surgeons in Trinidad and Demerara. He was instructed to file these for reference.

Instructors.—The Secretary submitted the following letter from the Colonial Secretary's Office :—

No. 3957-4025. 26th April, 1907.

With reference to your letter of the 8th inst., I am directed to inform you that the Treasurer has been instructed to pay over to the credit of your Society on or about the 5th April, 5th July, 5th October, and 5th January, in each financial year one-fourth of the £500 provided on the Estimates for the payment of Instructors employed by reason of the payment of Messrs. Elder, Dempster & Company of that amount. The Treasurer has been instructed to make now the first of these quarterly payments. I am to request you to furnish me with a half-yearly account of the expenditure by your Society on this account.

2.---I am also to say that the balance (viz. £614 11s. 8d.) of the £875 deducted from the Contractors for this service in January last, of which you were informed in my letter of the 9th April, No. 3284-3580, and which has been placed on deposit, has yet to be appropriated

The Secretary also submitted the following report of the Instructors' Committee :—

The Instructors' Committee met on Wednesday, 19th June, 1907, at 3.30 p.m. Present: Robt. Craig, Esq., in the Chair. Messrs. D. Campbell, J. R. Williams, and the Secretary, and beg to report as follows :---That they considered the statement of account showing the future amount available for additional Instructors to be £619 11s. 8d., which spread over four years would allow £154 17s. 11d., over three years £236 10s. 6d., over two years £309 15s. 10d. They considered letters from Mr. Palache and Mr. Arnett with reference to the large extent of their district, and the limited amount of their remuneration ; also letters from Mr. Cradwick, referred from the Board of Agriculture, with regard to his district, and a Minute from Mr. Fawcett reporting the results of an interview which he and the Secretary had with the Governor regarding Instructors. They considered three applications for the post of Instructor. After discussion it was resolved to recommend that the parishes of St. Catherine and Clarendon be formed into a new district, thus relieving Mr. Cradwick of St. Catherine, Mr. Arnett of Upper Clarendon, and Mr. Palache of Lower Clarendon, and to recommend the appointment of Mr. J. Hirst as Instructor, his residence to be at Mocho in Clarendon, to give not less than 11 days a month

to practical work and travelling, at a salary of £200 a year, the engagement to be at three months notice on either side. They also recommended in view of the complaints of some of the other Instructors, that the time to be given to practical work and travelling should be fixed at not less than four days per week, leaving two days for their correspondence and office work generally, that the Secretary should furnish the Instructors with reasonable supplies of stationery for office use, and that the Government should be again approached with the view of allowing the Instructors free postage, by means of franked envelopes supplied from the office. The Committee also recommended that the Secretary should have special forms printed on which the Instructors should submit their proposed itinerary for each month, to be sent in to the Secretary not later than the 25th of the previous month, as well as the actual itinerary carried through for each month, to be sent to the Secretary not later than the 5th of the following month. The Committee also recommend that in future the Secretary should revise the reports of the Instructors before they are published.

The Report was adopted.

Brussels Convention.—The Secretary laid before the meeting communications from the West India Committee and letters from the Barbados Agricultural Society covering a copy of a resolution sent to the Secretary of State for the Colonies protesting against the withdrawal of the British Government from the Brussels Convention.

The Chairman said at the General Meeting later he would move a resolution in the same connection.

The matter was deferred till then.

Bulls.---The Secretary submitted the following letter from the Colonial Secretary's Office :—

No. 5229-5386. 3rd June, 1907.

I am directed by the Governor to acknowledge the receipt of your letter of the 25th ult., asking for a refund of the expenditure of the Jamaica Agricultural Society on account of the two Bulls sent out by Sir A. Jones.

2.—His Excellency has examined the correspondence relating to this matter and the position as it appears to His Excellency is as follows, viz :—That the Bulls were presented by Sir A. Jones to Sir A. Swettenham, and accepted by the latter as Governor of Jamaica. That at the Governor's request, and with his approval, the Society arranged with the late J. M. Gibb to inspect the animals, take charge of them and receive them at his stables. That the Board at His Excellency's request made arrangements for the réception and keep of the Bulls by private persons, notifying the Government on the 24th of September last that in the meanwhile the Bulls were costing 12s. 3d. each per week for keep.

3.—So far the Society appear to have acted entirely as Agents for the Governor, but in reply to their letter of the 24th September hoped that the Board would be careful to see that the expenditure which might be incurred was such as could be met from the vote to the Society granted by the Legislative Council, and in a further letter the Governor declined to authorize the free transport of the Bulls by rail.

4.—In their reply of the 25th October last the Board of Management thanked His Excellency for placing in the care of the Society the two Shorthorn Bulls presented by Sir A. Jones to the Governor, and reported that they had arranged to place the Bulls for the next twelve months in such a way that they would not incur any expense to the Government while some little income might accrue on their service, whilst as regards the expenditure already incurred, the Board offered to pay £5, then available on their estimates, towards such expenditure.

5.—Under these circumstances, His Excellency thinks the Society having accepted so much of the liability may fairly be called upon to bear it, and as regards the balance he regrets that there are no funds at present appropriated by the Legislative Council from which he could direct repayment to the Society, but he will cause a vote for the amount to be submitted to the Legislative Council for the purpose on the first opportunity.

The Secretary was directed to reply that the Board had been willing to pay over the £5 allocated for bulls which they had not used last year, but as the matter was not settled by the end of the financial year, they could not agree to pay over the sum of £5 presently allocated for all contingent expenses on bulls for the rest of the year.

Rat Virus.—The Secretary submitted correspondence as follows :—

No. 4624-5861, 15th Mry, 1907.

With reference to the 4th paragraph of your letter, No. 396, dated the 25th ult., I am directed by the Acting Governor to inform you, for the information of the Jamaica Agricultural Society, that the Island Chemist reports that he received the Rat Virus from the Mexican Government, and that steps had been taken to have it tested in the Government Laboratory, but that as the cultures had perished it was not possible to obtain any evidence as to the practical efficacy of the Mexican Virus.

2.---Mr. Cousins states, however, that if a fresh supply of Rat Virus in an active condition could be obtained, the Government Bacteriologist could carry out a series of trials in comparison with the European Rat Virus at present in use in Jamaica.

Also a letter from the Ratin Bacteriological Laboratory, London, as follows :---

17, Gracechurch St., 16th May, 1907.

SIR,---I beg to acknowledge, with thanks, the receipt of your letter of 25th April, on the subject of our preparation, Ratin.

The reasons why the two preparations of Rat Virus now sold in Jamaica, the Liverpool and Danysz Virus, are productive of as many failures as successes are partly because not sufficient care is exercised by the Agents in importing it fresh, and keeping it cool, but chiefly because they are sold as gelatine cultures in glass tubes, and the tedious and difficult process of preparing them for use exposes them so long to the action of light and air and attack by other hostile microbes that a large part, and often all, of the virulence has disappeared by the time the preparation is ready to be put out. All this danger has been avoided by us in our system of preparing the bait for immediate use at our own Laboratory and putting it up in air-tight tins.

I am sending you three tins of Ratin No. 2, as samples, as requested by you, and I shall be glad if they will be applied under conditions where the results obtained may be accurately ascertained.

You may be interested in seeing the Reprint of a report made on behalf of the German Government on the subject of "How to use Ratin," and also a copy of a memorandum sent by us yesterday to a South African Government.

The communications enclosed on "How to use Ratin," were directed to be printed in the Journal. The Secretary reported that he had written the Chemist asking him to try to obtain a further supply of the Virus offered by the Mexican Government. He also tabled three sample tins of Ratin, just received.

Mr. Craig, Mr. Campbell, and himself were asked to carry through a trial of these, and report on results.

Banana Fibre.---The Secretary submitted the following report :---

I beg to report that I sent off by the S.S. " Port Antonio," and the S.S. " Port Kingston," on the 9th and 23rd May, 2 barrels of banana stems received from Dr. Pringle and Mr. Hotchkin, to Belfast for experiment. The Government authorised free transit by the railway, and the Elder, Dempster Company carried the consignments free to Avonmouth, the charges to be forward after that.

JNO. BARCLAY.

Import Duty on Live Stock---The Secretary said that the papers on this subject had been circulated in December last to the Live Stock Committee, and had been returned to the office, he thought, on the morning of the earthquake, but he had not recovered them among the papers, which had now all been gone through. The matter was not yet settled. He was directed to submit the matter to the Committee again.

Importation of Seeds and Plants.---The Secretary submitted letter from the Colonial Secretary's Office as follows :---

No. 5639-6757. 12th June, 1907.

I am directed by the Governor to forward a copy of a letter from the Commissioner of Agriculture for the West Indies, with regard to a suggestion of the Director of Public Gardens that the Proclamation prohibiting the importation into Jamaica of seeds or plants from Natal, South India, Ceylon, Mauritius, Java and Fiji should be withdrawn.

2.---I am to say that His Excellency would be glad if the Agricultural Society would be so good as to state whether they concur in Sir D. Morris' opinion that the Proclamation might be withdrawn provided that such seeds or plants are regularly disinfected before they are submitted.

Imperial Department of Agriculture for the West Indies,
No. J. 1943. Barbados, 16th May, 1907.

The Hon. Colonial Secretary, Jamaica.

SIR,---I have the honour to acknowledge the receipt of your letter No. 3158-3866 of April 5th last, in which you invite my views on the proposal that the Proclamation of 2nd December, 1887, prohibiting the importation of seeds or plants from Natal, South India, Ceylon, Mauritius, Java and Fiji should now be withdrawn.

2.---In view of the fact that the persons chiefly concerned in the matter as stated in Mr. Fawcett's letter (No. 2525 of March 21, 1907) are agreed "that there should be no danger now" to the coffee plantations of infection from *Hemeleia vastatrix* by importing seeds and plants from the countries named above. I would suggest that, provided that such seeds and plants are regularly disinfected before they are admitted, the Proclamation of December 2, 1887, may now be withdrawn.

3.---I recommend, however, that careful watch be kept in order that on the first signs of the appearance of the *Hemeleia* on coffee plants at Jamaica arrangements may be made to deal promptly with it.

I have, etc., (Signed,) D. MORRIS,
Commissioner of Agriculture for the West Indies.

Mr. Craig said he did not believe in making a hard and fast rule, because, for instance, at the present time they were interested in importing Para Rubber Seeds from Ceylon and Singapore, which

came in tins of powdered charcoal, and yet only a percentage germinated. If the tins were opened and the seeds fumigated they might probably not succeed in raising a single plant from them.

It was resolved that the matter was too important to settle without due deliberation, and accordingly the letter was referred to the Committee on Staple and Minor Products for consideration and report.

Cotton.---The Secretary submitted the following letter from the Colonial Secretary's Office :---

No. 5312. S.S. Misc.
13.5.07. 5th June, 1907.

I am directed by the Governor to inform you, for the information of the Jamaica Agricultural Society, that the Secretary of State for the Colonies reports that the estimated value at the present date of raw cotton at ports of shipment in the West Indies is (Sea Island) 1s. 3d. to 2s. 3d. per lb.

Medals for Cotton.—The Secretary submitted a report as follows :—

With reference to the offer by Sir Alfred Jones of one gold and two silver medals for the best cultivations of Sea Island and Egyptian Cotton of not less than one acre, I beg to recommend that the gold medal be awarded to Mr. L. G. Desporte of Industry, Half-way Tree, St. Andrew, for his cultivation of one acre of Sea Island Cotton, planted on 13th September, 1907, and which has yielded to date over 1,100lbs. of seed cotton, valued at 1s. 7d. to 1s. 9d. per lb.; a silver medal to J. M. Lewis, Yallahs, for a cultivation of Sea Island and Caravonica Cotton of four acres, part of which, however, on the light bar lands at the sea was burned out by the drought : the balance on rich alluvial soil adjacent yielded well. Mr. Briscoe, Agricultural Instructor and myself have visited both of these cultivation at different stages and he joins with me in this recommendation. The second silver medal is not awarded, no other cultivations fulfilling the rules.

JOHN BARCLAY, Sec.

The Report was adopted, and the Secretary was instructed to advise the Colonial Secretary, and the Agent of Sir Alfred Jones of the recommendations.

Premiums on Stock.—The Secretary said it would soon be necessary to make the selection of the stock imported in the competition for the Society's premiums. He was instructed to get reports by competent penkeepers on the animals entered, and together with his own report of his inspection of the animals when they arrived, submit to the Live Stock Committee.

Prize Holdings, Distribution of Prizes.—The Secretary reported that the prizes had been distributed to the winners at a series of public meetings held in Manchester, St. Ann and Trelawny, at all of which the Deputy Chairman was present, and he was present at one meeting.

He submitted correspondence relating to the Competition in Manchester, a matter which had already been before the Instructors' Committee, and appeared to have a very serious bearing on the Society's work.

Letters from Mr. Palache, Mr. A. C. L. Martin, and the Revd.

Robert Johnstone, stated that several of the winners of prizes in the recent Prize Holding Competition in Manchester had the valuations of their holdings increased since they had been adjudged winners, and that the effect of this proceeding on the part of the Collector of Taxes would be to denounce the competition, destroy the work of the Agricultural Society, nullify the efforts of the Instructors, and raise the worst suspicions of the small settlers as to the objects of agricultural teaching. Several cases were quoted, which appeared to confirm the allegations.

The Secretary also submitted a letter of explanation from the Collector of Taxes in which it was stated that it was a coincidence that several of these cases happened to be winners of prizes in the Holdings Competition, that the valuations of all those which appeared to be grossly incorrect at the first Ingiving had been revalued, and that in the case of Logan and Brown, the Assistant Collector had erroneously collected taxes on the increased valuation, notwithstanding the fact that these amended ingivings were made subsequent to the 1st April, and that he had accordingly refunded the amounts overcharged. The Collector further stated that he had always been in sympathy with the objects of the Prize Holdings Competition; that cases of under-valuation were often brought to light by neighbours who were fully valued, complaining of the comparison, and so far as he was concerned the re-valuation had nothing to do with the Prize Holdings Competition.

The Board directed the Secretary to publish a clear statement of the matter, and ask the Collector-General to warn his Assistants to exercise caution in their statements and dealings in connection with this competition and the collection of taxes, as evidently some unnecessary and injudicious contention had taken place at the Tax Office at Alligator Pond in connection with Brown's case.

Hurricane and Earthquake Insurance.—The Secretary submitted a letter from Mr. Christopher Head, of Head & Co., Insurance Brokers, London, submitting copies of rates for Hurricane and Earthquake Insurance. The papers were tabled.

Inspection of Direct Line Steamers.—The Secretary submitted letter from the Colonial Secretary's Office, forwarding reports of the inspection of the S.S. "Port Henderson," "Port Kingston," and "Port Royal." The reports, in reply to special enquiry from the Colonial Secretary asking whether there was any difference in the matter of precautions and ventilation between the accommodation provided for Messrs. Elder, Fyffe fruit and that provided for small shippers, stated that there was no difference found.

Citric Acid.—The Secretary submitted letter from the Agent of Messrs. Elder, Dempster & Co., forwarding a letter from Mr. Robert Thomson, with a cutting from the Pharmaceutical Journal *re* prices of Citric Acid. The letter is as follows :—

45, Bensham Road, Thornton Heath, 24th April. 1907.

SIR,—Shortly before I left Jamaica I submitted a report to Mr. Haggart on

behalf of Messrs. Elder, Dempster & Co., a report which Mr. Haggart published on the great possibilities of Lime Cultivation in Jamaica,---a plant that actually grows without cultivation there---the cultivation primarily with the object of producing citric acid on a great commercial scale.

I take the liberty to enclose herewith a cutting from the "Pharmaceutical Journal," a work of the highest standing, on the advancing price of citric acid.

Yours truly, ROBERT THOMSON.

The Secretary was directed to publish the cutting in an early issue of the Journal.

Half-Yearly Report.—The Secretary submitted draft of his Half-Yearly Report which had already been sent to members of the Board. No revisions were made, and it was approved for presentation to the General Meeting.

Affiliation—Annotto Bay Agricultural Society.—The Secretary submitted application for affiliation from a new Society started by Mr. Cradwick at Annotto Bay. The rules having been complied with affiliation was granted.

Instructors' Reports.—The Secretary submitted the reports of the Instructors and these having already been published in the newspapers were accepted.

New Members.—The following new members were elected:—

Messrs. J. E. Thompson, Half-way-Tree; J. F. R. Baron, Annotto Bay; Wm. Charley; H. T. Rushie Gray, Kingston; P. O. Hutchinson, Spur Tree P.O.; Revd. J. E. Randall, Kingston; Revd. S. R. Brathwaite, Kingston; Revd. C. B. Hughes, Linstead; Dr. Sandburg Von Sayda, Cubá; Page Wire Fence Company, St. John's, N.B.; His Hon. Dr. Geo. S. S. Hirst, Commissioner Cayman Islands; Mrs. Ruth Knollys, Morant Bay.

The Secretary stated that Dr. Hirst Commissioner of the Cayman Islands seemed very keen on Agriculture, and had been in regular correspondence with him in the matter of improving the cattle there, and about Bee-keeping, Poultry-rearing, Cotton and Coconuts. He thought he should be allowed to assist Dr. Hirst in every way he could.

Mr. Craig (Chairman) said that he was glad to hear that Dr. Hirst had some enthusiasm for Agriculture. The Cayman Islands were a dependency of Jamaica, and a local Agricultural Society could be started there, it could be affiliated, and the members could get Journals. The Secretary was doing right to give any help the Society could afford.

The Meeting adjourned to Thursday, 18th July, at 11.40 a.m.

HALF-YEARLY REPORT.

THE Half-Yearly General Meeting of the Jamaica Agricultural Society was held at the office, 82, Hanover St., on Thursday, 20th June, 1907, at 1 o'clock, present:—Hon. Geo. McGrath, Father Collins; Messrs. R. Craig, C. A. T. Fursdon, J. Shore, J. R. Williams, T. J. Curphey, C. W. Magnan, and Geo. Thomas, Mr. R. Craig, presiding.

The Minutes of the previous Half-Yearly Report were taken as read and confirmed.

The Secretary submitted his Report for the Half-Year ending 31st March, 1907, as follows :—

I have the honour to submit report for the Half-Year, from 1st October, 1906, to 31st March, 1907, together with statement of accounts for the financial year ending 31st March, 1907 :---

BOARD OF MANAGEMENT.—During the six months under review four ordinary meetings of the Board have been held, also the Half-Yearly General Meeting in November. No meetings were held in January or February owing to the earthquake of 14th January, but papers relating to the office staff, and the work done, were circulated among the members of the Board for their information and advice. The only Committees that met were the Finance Committee (on Friday, 30th November,), and a Special Committee to consider the matter of the cargo space on the Direct Line Steamers on the same date. A Special Committee consisting of Mr. Robert Craig and Mr. J. R. Williams was also appointed to meet with the Board of Agriculture in carrying through the West Indian Agricultural Conference. The Board of Agriculture was represented by the Colonial Secretary, and Mr. Fawcett who as Director of Public Gardens and Deputy Chairman of the Society represented both Boards. The Secretary acted as Secretary for the Conference Committee. All the Committees have had papers circulated to them for their information and opinions, and summaries of their replies have been submitted to the meetings of the Board. Papers on the following matters have been circulated :—

Live Stock	... ...	8
Instructors	... ...	4
Finance Committee	... ...	1
Office Committee	... ...	2
Total		15 Sets of papers.

The individual attendance of members of the Board has been as follows :—

	2nd Half Year.	1st Half Year.	Half Yearly Meetings.	Total.
His Ex. Sir J. A. Swettenham, President	1	1	1	3
Hon. Lt.-Col. C. J. Ward, Vice-President	1	0	1	2
Hon. Dr. Pringle, Vice-President	3	4	2	9
Hon. W. Fawcett, Deputy Chairman	4	3	2	9
Hon. H. Clarence Bourne	1	1	0	2
Hon. L. J. Bertram	3	4	1	8
The Very Revd. Father Collins, S.J. ...	2	1	0	3
Robert Craig	2	3	2	7
Dugald Campbell	3	6	1	10
John Cameron	1	2	1	4
C. A. T. Fursdon	2	5	2	9
*R. H. Hotchkin	2	4	0	6
Hon. Geo. McGrath...	1	1	0	2
E. W. Muirhead	4	6	2	12
Hon. H. T. Ronaldson	1	3	0	4
J. Shore	0	1	1	2
Hon. R. P. Simmonds	2	2	1	5
R. A. Walcott	0	1	0	1
J. R. Williams	0	1	1	2
The Secretary	4	6	2	12

*Mr. Hotchkin was absent from the island for four months during the second half of the year, and six members of the Board were also absent from the island during the previous six months as per last Half-Yearly Report.

The chief business transacted by the Board during the six months has been as follows :—

WEST INDIAN AGRICULTURAL CONFERENCE.—A Special Committee was appointed to act along with a Committee of the Board of Agriculture to arrange for the Conference held in Kingston in January under the Presidency of Sir Daniel Morris. An account of the Conference, along with a list of the represtatives was printed in the first Journal published after the earthquake, viz., in March. Subscriptions for the entertainment of the visitors were given by members and the public to the amount of £117 0s. 6d., and the Committee arranged various excursion for the delegates and other entertainments for the visitors, some of which were carried through most successfully. A great earthquake occurred on the afternoon of the first day of the Conference, 14th January, and brought Conference and the whole arrangements to an abrupt conclusion. The Secretary acted as Secretary of the Conference and also arranged an exhibition of Jamaica Products in the old Mico.

ELDER, DEMPSTER & CO., CONTRACT AND CARGO SPACE.—Complaints having often been made respecting the arrangements for the carrying of oranges, grapefruit, and other perishable fruits other than bananas shipped in the Elder Dempster Steamers by shippers other than Messrs. Elder & Fyffes, Ltd., the Board referred the matter to a Sub-Committee and a report was sent to the Government on the subject with the request that the power given in clause 18 of the contract to inspect the Elder Dempster Steamers should be exercised. The Government at once complied and appointed Mr. Charlton Thompson, Harbour Master, for that purpose. A copy of each report of his inspection has been regularly forwarded to the Board. As, however, the orange season had practically closed before this inspection was instituted these reports have not called for comment so far.

CATTLE TRADE.—A correspondence with the Government continued on matters arising out of the Society's enquiry into and report on the condition of the cattle trade of the colony. The recommendation made that animals should only be killed at appointed places of slaughter throughout the island was not favourably entertained by the Government. The Board at intervals, since the duty was imposed on all stock imported, except poultry, has made representations to the Government to have the duty on stock imported for breeding purposes removed, and another attempt was made to move the Government in the direction desired. In reply the Society was asked how it was possible to distinguish between those animals imported for breeding purposes and those for other purposes. This reply was circulated to the Live Stock Committee for their consideration, but the papers were not recovered from the old office after the earthquake, and this matter has not yet been dealt with by the Board. (Journal 1906, page 319.)

Meat Inspection.—A correspondence has also been carried on with the Government on the subject of meat inspection, the Board contending that animals in an unfit condition were slaughtered, and unwholesome meat was offered freely for sale, throughout the island, and that inspection was desirable and necessary in places where no provisions for this existed. The Government, however, held that from their returns of police prosecutions there were apparently but few instances calling for prosecution for the sale of unwholesome meat. The Board replied that the police did not appear to do their duty in this respect, and that the District Medical Officers might be appointed as referees. The matter is in abeyance.

Veterinary Inspector.—The Board also recommended to the Government that a competent Veterinary Surgeon, fulfilling the requirements laid down by the Board of Agriculture and Fisheries of the United Kingdom should be obtained by the Government and allowed private practice, but the reply was that this was a matter entirely for the penkeepers themselves to deal with. Meantime Mr. Gibb, the Government Inspector of Stock was killed in the earthquake, and Mr. R. Rain was appointed to act temporarily. (Journal 1907, page 38). Mr. Rain has since died.

MEDALS FOR COTTON CULTIVATION.—The Silver and Bronze Medals offered by Sir Alfred Jones for the best cultivations of cotton were not largely competed for. It has been recommended to the Board that Mr. L. G. Desporte, Half-way Tree, St. Andrew, should receive the Silver and Mr. J. M. Lewis, Yallahs the Bronze Medal, the cotton cultivations of these gentlemen having given good results. It is not likely that cotton growing in this island will ever be subjected to a more severe test as a drought resisting crop than in this season.

As a result of the success of Mr. Desporte's experimental cultivation which was visited in January by Sir Alfred Jones and Sir Daniel Morris, a considerable acreage of Sea Island Cotton is likely to be planted in St. Andrew.

HANDBOOK OF JAMAICA.—A suggestion was made by the Board to the editors of the Handbook to include in it a list of penkeepers owning not less than 200 head of stock and this has been done.

PRIZE HOLDINGS COMPETITION.—The second round of the Prize Holdings Competition was commenced and carried through in Manchester, St. Ann and Trelawny. Some difficulty arose owing to the attendance of our Instructors at Hope Gardens in January in connection with the Teachers Agricultural Course, then the Earthquake, and the consequent interruption in the work of the Society for some weeks, the Secretary and Instructors being engaged on Relief work in Kingston. This gave rise to an impression that the Competition would not be carried through. The office, however, soon resumed its ordinary operations, and the competition has been very successful. It is intended to publish a full list of competitors and the points awarded to prize winners, but owing to difficulties in printing it will be some months before this can be issued. Public meetings are being arranged in each of the parishes for distribution of the prizes.

Although the Instructors were handicapped in being absent from their parishes during an important month, the increase in the entries as compared within the first year of the competition is remarkable, and is as follows:—

	1902	1906
Trelawny	23	48
Manchester	44	84
St. Ann	32	125

The next year's Competition has been arranged to be held in Westmoreland, Hanover and St. Mary in which parishes Instructors are at work.

INSTRUCTORS.—An Instructor for the Western District was advertised for and Mr. H. D. D Mennell of Maggotty, Siloah, was appointed to act from November last at a salary of £250 a year to live at Darliston in Westmoreland as a convenient centre. It was also arranged that Mr. Palache should dovote his whole time to his district and receive £300 a year to cover salary and travelling expenses. It is now settled that the amount due to 31st March 1907 by Messrs. Elder, Dempster & Co. on account of Instructors was £1,080 and the Government intimated that the Crown Agents had deducted from the Subsidy the sum of £800 to 14th January, 1907. As the amount accumulated has not all been allocated, suggestions for the extension of Instructors work are still under consideration. (Journal 1906, page 419,—1907, page 41.)

The districts for the Instructors appointed are as follows:—Mr. Cradwick, St. Catherine, St. Mary and Portland; Mr. Briscoe—St. Andrew and St. Thomas; Mr. Arnett—St. Ann, Trelawny, Eastern St. James and Upper Clarendon; Mr. Palache—Manchester, St. Elizabeth, Lower Clarendon; Mr. Mennell—Westmoreland, Hanover and Western St. James.

It has been represented to the Secretary that Mr. Arnett's district is too large and cannot be covered effectively by one Instructor; that he has not been able to visit Upper Clarendon and that some further re-arrangement is required.

At the request of the Board of Agriculture, the Board permitted all the Instructors of the Society to give their assistance at the Teachers Course at the Mico College and Hope Gardens all the month of January. This, however, like other business was interrupted by the earthquake, immediately after which the Instructors, except Mr. Palache who was ill at the time, did yeoman service in helping to clear the streets of bodies and carcasses of animals, returning to their duties at the end of the month.

BULLS.—Two Shorthorn Bulls were presented to the Governor by Sir Alfred Jones and placed in the care of the Society. One has been stationed at Brumalia, Mandeville, care of Mr. A. M. Lewis, and the other at Tobolski, Brown's Town, care of Mr. R. L. Young. Both have kept excellent health and are doing good service. The Hereford Bull "Sylvester" has been at Knockalva Pen. There has not seemed to be any particular demand for the services of the Bull although he is reported to have kept in good condition and to have bred very fine calves. The King's Shorthorn Bull "Desmond" has been in the care of Mr. A. C. L. Martin of Great Valley, Manchester. He was sent there in very poor condition but picked up quickly and did good service. He has been transferred to the care of Mr. J. W. Mills, Bog Walk, for season 1907.

STALLION.—The Stallion "Sir Gerald" stood at stud in St. Andrew and served seven mares which have both dropped foals. Early in March he was transferred to the care of Mr. J. D. Mennell, Maggotty, Siloah, St. Elizabeth, but the long drought has interferred with his usefulness there.

PREMIUMS ON LIVE STOCK.—The Premiums offered by the Board (to be paid from the proceeds of the sale of the bulls presented by Sir Alfred Jones) for imported bulls, pigs, and goats are all being competed for. The following importations have been made.

South Devon Bulls.—C. L. Walker, St. Ann, two; C. A. Nunes, Falmouth, one; Mrs. Roper, Unity Valley, one; A. L. Keeling, Spanish Town, one; G. W. Fitz Herbert, Pratville, one. Three of the above have been entered for the Premiums.

Dairy Shorthorn Bulls.—M. M. Alexander, St. Andrew, Red Shorthorn. A. C. L. Martin, Great Valley, Manchester, Lincolnshire Red Shorthorn. These have been entered for the Premiums, but the first mentioned has since died.

PIGS....Pure-bred Poland China pigs were also imported through the Society for Mr. S. S. Stedman, Woodstock, Buff Bay, and for Mr. David Marchelleck of Morant Bay, and an Essex boar and shoat for Dr. Tood, Black River, all of which have been entered for the Premiums.

In the first importation of pigs by the Society in 1896, the one Essex Boar imported left such distinctive results in its projeny, and still apparent after ten years that it has heen thought well to re-introduce the breed.

GOATS.—Four he goats are also being imported at the date of the report, and probably several she-goats of milch breeds will also arrive.

SHOWS.--The only Shows held during the six months were; Red Hills, 26th December; Appleton, 26th December, and Savanna-la-Mar held on the usual date, 1st January.

The following Shows were arranged for but owing to the earthquake it was considered inadvisable to hold them this year. Porus, 24th January; Montpelier, 28th; Trinity Ville, 14th February; Christiana, 14th March. Owing to the effects of the continuous drought the St. Ann Show will not be held as proposed, on 1st August.

The withdrawal of the Society's grants has been most detrimental in its effect, especially to small Shows. There is also the loss of central control to be considered, and the fact that the Secretary and Instructors have now no *locus standi.*

MEMBERS.—The number of members on the roll is 520. Of this number 46 new members have been admitted during the year. and 24 struck off, some owing to subscriptions being unpaid, some having resigned, and 19 having died, 9 of these deaths being due to the earthquake.

BRANCH SOCIETIES.—There has been a difficulty in keeping up interest in the older Branch Societies, and it is necessary if these Branches are to be effective and have influence in their districts, that there should be regular visitations by Instructors at short intervals, and occasianal visits by the Secretary would assist to keep them in touch. Hitherto there has been a lack of continuity in the arrangements for Instructors, so that districts have sometimes been without one for a period, and at other times Instructors have not had time nor means at their disposal to visit frequently enough. If a new appointment is made for St. Catherine and Clarendon as is now suggested, Mr. Cradwick, Mr. Arnett and

Mr. Palache would be relieved of portions of their large districts and the present appointments being fixed for two or three years, this should enable the work to be carried on more systemmatically than hitherto.

The following Local Agricultural Societies have been affiliated during the year: Red Hills, (St. Andrew); Retreat (St. Mary); Hampden (Trelawny); Central St. Andrew (being an amalgamation of the members of the defunct branches—St. Christopher and Manning's Hill); Cambridge, (St. Andrew an off-shoot of Port Royal Mountains Branch); Santa Cruz Mountains (St. Elizabeth); and Pedro (St. Ann.)

The following Local Branch Societies are at present affiliated: Aberdeen, Æolus Valley, Appleton, Balaclava, Bath, Black River, Cambridge, Clarksonville, Cornwall (Central), Clarendon (North-East), Clarendon (Mid), Christiana, Duan Vale, Deeside, Davyton, Fairfield, Fair Prospect, Hanover, Hampstead, Hampden, Lamb's River, Manchester (East Central,) Manchioneal. Mocho and Brixton Hill, Newmarket, Ocho Rios, Pedro, Port Maria, Porus, Port Royal Mountains. Portland (Central), Red Hills, Rio Minho Valley, Retreat, Savanna-la Mar, Springfield, St. Ann, St. Georges, (Buff Bay) St. Johns, St. Johns (Upper) St, Peters, St. Andrew (Northern St. Andrew Central), Sergeantville, Santa Cruz, Santa Cruz Mountains, Trelawny (Upper), Trinityville, Thompson Town,—with 2,809 members.

The following Branches have become defunct :---Above Rocks, Central Manchester, North-West Manchester, Mile Gully, Grove Town, Mount James, Central Trelawny, while Balaclava, Rio Minho Valley and East-Central Manchester are moribund. The defunct Branches, St. Christopher and Manning's Hill have amalgated and started afresh as Central St. Andrew.

JOURNAL.—The "Journal" was issued as usual up to December. The January issue was ready for publication on the usual date, the 15th of the month, and on the day of the earthquake was complete in the printing office ready for delivery, but was completely destroyed by the fire following the earthquake. Owing to the destruction of the printing office and the difficulty in getting printing done, the Journal was only issued for the three months comprising January, February and March.

The cost of printing has considerably increased, and new tenders will be required.

Some reprints of useful articles have been made in leaflet form, but most of these have been destroyed. New reprints should be made as opportunity occurs. These are found useful for enquirers, and save the issue of back numbers of the "Journal." Most the old copies of the "Journal," still in print were fortunately recovered.

The number of copies issued to members has been 519, to branch members 2,306, to exchanges and complimentary 191, for office use 100. Total 3,116.

OFFICE.—During the six months under review there have been 2,038 letters received, and 2,271 letters sent out, the totals for the year being 3,900 and 4,187 respectively. The following were the subjects and number of the letters des-despatched: Board of Management 32, Branches 248, Journal 96, Instructors 176, Prize Holdings 143, Shows 99, Exhibitions 22, Agricultural Conference 166, Rubber 31, Cotton 23, General Products 99, Potatoes 99, Vegetable Seeds 61, Cattle and Horsekind 94, Society's Bulls 101, Small Stock and Bees 88, Poultry 116. Sundry 574. This statement does not include agendas, duplicated notices and memoranda. Receipts to the number of 941 have been issued and 797 receipts have been received for payments made.

The Secretary has not been able to visit many of the Branch Societies during the six months under review. Besides the ordinary office work, he was closely engaged in the additional secretarial work in connection with the West Indian Agricultural Conference all the month of December to the end of January. Immediately after the earthquake he was engaged in the work of rescue and in clearing the streets; in saving books and papers, etc., from the ruins of the office, and what articles remaining in the Conference Hall; and later in getting the temporary office into working order, and winding up the affairs of the Agricultural Conference. Temporary premises were immediately found at 82,

Hanover Street, near the Conferance Hall, where the office is still situated. At the suggestion of the Archbishop, and at the request of the Governor, the Secretary was authorised by the Board to give most of his time for three months to work on the Relief Committee, that body paying for an Assistant to him. He has, however, during that time been able to closely overlook the office work. The Relief Committee's Labour Bureau was given the use of part of the Society's Office. Mr. de Valda, the clerk, left the office after the earthquake for other work, and Mr. L. L. Carrington, formerly a junior clerk in the office, and who had just finished his two years agricultural course at the Government Laboratory where he took first position among the students, is acting in his place.

Owing to the serious effects of the drought which began in November and has lasted to date with no signs of breaking, the Secretary has been anxious to resume his office duties on account of the calls on the Society for advice and assistance both as regards stock and crops. Owing to these claims a good deal of late work has been necessary; the office has rarely been closed before 5.30 p.m. and evening work has been carried on with the help of the Assistant provided by the Relief Committee—Mr. Stewart—who has proved a willing and efficient help. The serious character of the drought has called for an enquiry into the present losses and the effect the injury sustained is likely to have on next years crops. The result will be summarised and appended to the report.

The usual work in supplying, or acting as medium of supply, of vegetable seeds, seed potatoes, cow peas, seed corn and guinea corn, seed cocoanuts, selected Sea Island Cotton seed, Caravonica Cotton seed—imported from Queensland —also native grown, rubber seed, live stock, etc. and giving information on many agricultural matters, has been carried on.

The Secretary has kept in touch with the Instructors and their work, but not so closely as is desirable, through his inability to visit their districts at stated intervals. He was able, however, to go through Mr. Arnett's district in August last on which he reported.

FINANCES.—We commenced the year with a balance of £172 6s 10d, The income has not proved quite satisfactory owing to various circumstances. Subscriptions are less than than estimated and the issue of only one Journal for the three last months of the financial year obliged us to carry advertisements forward for two months. Negotiations have been carried on for the sale of the Stallion to Cuba, but the troubles there caused the matter to drop.

We have exceeded the allocations for stationery by 17s. 1d., on Stallion by £3 2s. 3d., on Bulls by £10 13s. 3d., but the amount of £15 11s. 6d. is due us on this account by the Government for veterinary expenditure on the two bulls presented to the Government.

On the other hand there has been a saving in the estimates of expenditure as follows:

(1) Clerks £9 17s.

(2) Local Instructors £35, three months having elapsed between the resignation of Mr. Hirst and the appointment of Mr. Mennell.

(3) Rent £8, none being paid for January, February and March.

(4) Journal £87 13s. 1d., one Journal for January, February and March only being printed.

(5) Travelling £18 5s. 8½d. owing to the postponement of so many Shows during the last three months of the financial year.

(6) Postage and Carriage £2 7s. 11½d.

(7) Prize Holdings £1 8s. 6d.

(8) Telephone £1 10s.

(9) Advertisements £13.

Additional expenditure, however, will be necessary to replace furniture and books destroyed, though the loss of these has been curiously small considering how completely the old office was demolished in the earthquake.

Statement of Accounts and Estimates for 1907-08, are appended.

JOHN BARCLAY, Secretary.

RECEIPTS.

	Estimates	£	s.	d.	£	s.	d.
To Balance from 1905-06					£207	17	4
" Subscriptions	90	£ 83	16	6			
" Advertisements	40	29	2	7			
" Stallion Fees	40	10	9	3			
" Affiliations	10	10	15	0			
" Prize Holdings Entries	7 10	10	10	0			
" Journals sold	1	1	17	7			
" Sundries	1	1	11	9	148	2	8
To Deposits :							
" Horses		100	0	0			
" Bulls		35	8	3			
" Pigs		42	7	10			
" Goats		12	0	0			
" Sheep		11	6	0			
" Poultry and Rabbits ...		55	15	2			
" Rubber		3	19	0			
" Cotton Seed		3	1	0			
" Coconuts		132	4	8			
" Potatoes		52	5	5			
" Seeds and Plants (Sundry) ...		21	11	9			
" Exhibition (Crystal Palace) ...		55	3	6			
" West India Agricultural Conference		130	0	6			
" Board of Agriculture ...		76	12	6			
" Miscellaneous		7	11	4	739	6	11
" Grant from Government ...		1,250	0	0			
" Elder Dempster & Co., for Instructors		260	8	4	1,510	8	4
					£2,605	15	3

EXPENDITURE.

	Allocations	£	s.	d.	£	s.	d.
By Secretary's Salary	£250				£250	0	0
" Clerks, Typist and Messenger	184				174	3	0
" Instructors	320 0 0						
" E. D. & Co., per contra	260 8 4				545	8	4
" Rent ...	48				40	0	0
" Office Furniture	5				7	5	6
" Printing Journal	315				227	6	11
" Postage and Carriage	25				22	12	2½
" Sundry Printing & Stationery	35				35	17	1
" Prize Holdings	100				98	11	6
" Stallion ...	40				43	2	3
" Bulls ...	5				15	12	3
" Telephone ...	7 4				5	8	0
" Travelling ...	80				61	4	3⅛
" Advertising ...	3				2	7	0
" Miscellaneous	40				0	0	0
" Secretary's Bond ...		3	15	0			
" Drayage ...		·0	15	0			
" Books, Periodicals, etc. ...		2	16	3			
" Show Tins, repairs ...		1	16	6			
" Typewriter, repairs ...		5	11	10			
" Experiments with Formalin ...		0	4	3			
" Sundries ...		17	1	3½	30	0	1½
Deposits :							
" Exhibition (Crystal Palace)		55	8	10			
" Sundry Deposits per contra		684	11	6½	740	0	4½
					£2,298	18	10
Balance in Bank at 31st March, 1907		293	7	5			
Balance in hand at 31st March, 1907		13	9	0	306	16	5
					£2,605	13	3

JNO. BARCLAY, Sec.

Mr. Craig moved the adoption of the Report, seconded by Mr. Shore.

The Meeting was then declared open for discussion.

Mr. Craig said, " They must have observed in the papers recently a statement in which Sir Edward Grey is reported to have said that, ' The Government considered the limitation of the sources from which sugar may enter the United Kingdom inconsistent with the Government declared policy, and incompatible with the interests of British consumers and sugar manufacturers. Consequently it would be impossible for the Government to give effect to the provision of a convention penalizing bounty fed sugar.' "

" That, I take to mean, that the Government of Great Britain will permit sugar from any country which can supply it—whether the sugar is produced with the assistance of bounties or not—to enter the United Kingdom on equal terms. Sir Edward Grey's proposal is, to get rid of the penalties which under the convention compel Great Britain to penalize bounty-fed sugars and so to evade the only condition which now gives our sugar an open market—a market in which sugars are sold on the basis of the natural cost of production—and without adventitious aid. I need not point out that the suggestion that notice of withdrawal will not be given if Great Britain is exempted from penalties is the merest sophistry. I am no longer directly interested in the production of sugar, but I am interested in the welfare of Jamaica and the prospects of all cane-sugar-growing countries, my sympathies are naturally with those men who continued the struggle until fairplay seemed to have been attained some years ago. Now that it is about to be snatched away, the fight must be apparently continued, and I desire to re-open it here, with a resolution which I trust will commend itself to this Society.

I beg to move the following resolution :—Resolved : " That the Jamaica Agricultural Society views with regret and apprehension the probability of the Government of Great Britain withdrawing from the Brussels Sugar Convention thereby again enabling Foreign Countries, by the restoration of bounties on beetroot sugar and possibly the Cartel system to exclude the cane sugars of His Majesty's Dominions beyond the seas from the markets of Great Britain, and it may be, to consummate the ruin of the Sugar Industry in His loyal and long suffering sugar-growing colonies.

" That after a struggle for fair play, and for existence, over a period of nearly thirty years, these colonies five years ago, obtained an open market for their sugars in the mother country, and as the result of the abolition of bounties, confidence in the future of the industry was being restored, and capital has been forthcoming to carry on estates and the manufacture of sugar on the most approved systems of machinery and appliances.

" That under the unfair operation of bounties, a form of pro-

tection altogether at variance with a profession of Free Trade, the Cane Sugar Industry, should the Brussels Convention be denounced, will be sacrificed for the sake of class interest to the exigencies of party Government, and to the benefit of aliens, against which gross injustice to His Majesty's sugar-growing Dominions, this Society most strongly protests.

"That His Excellency the Governor be respectfully requested to represent these facts to the Secretary of States for the Colonies, together with an expression of his own opinions, if in agreement with this resolution."

Mr. Joseph Shore seconded the resolution.

The Hon. George McGrath said that the late Governor had taken up the matter, and had communicated with several gentlemen who had given him their opinion on the matter.

Mr. Craig said it was a happy thing that they had a Governor who knew the situation, perhaps better than any other man in the colony, and who would no doubt do all he could in their interest.

The resolution was carried unanimously.

Mr. Shore said that since the hurricane of the 11th of August, 1903, and the earthquake of the 14th of January last it seemed desirable that a meteorological service should be established, and also a wireless telegraph station, as this island might be cut off at any time from the outside world, as it was on the occasion of the earthquake, when it took seven days before we could get a warship here.

Mr. Robert Craig said he concurred with Mr. Shore. They had a man on the spot—Mr. Maxwell Hall—who was not only capable, but had his heart and soul in the work. There had been a meteorological service in the colony at one time, but it was abandoned on the stoppage of the small grant allowed by the Government.

The Hon. George McGrath said he agreed with the proposal and he thought the matter should be represented to the Government.

Mr. J. R. Williams asked whether the American Weather Bureau had entirely removed their service.

The Secretary said "Yes."

Mr. Shore then moved the following resolution :—"That in the opinion of this Society the Government's early attention be invited to the need for the restoration of the meteorological service in this island, and in view of recent events the necessity for the installation of wireless telegraphy in support of existing cable facilities."

The Hon. Geo. McGrath seconded, and the resolution was unanimously adopted.

The Secretary was instructed to send a copy of the resolution to the Government.

The meeting then adjourned.

TEXAS OR TICK FEVER AND ITS PREVENTION.

(Continued from the last Journal.)

Appearance after Death.—The post mortem examination should be made as soon as possible after death, as the carcase of an animal dead of Texan fever undergoes decomposition very rapidly. Upon cutting into the hide and skinning the carcass, a marked lack of blood in the blood vessels of the skin and underlying tissues is observed. Perhaps the most marked pathologic alterations in the disease are found in the liver. This organ is very much decayed, and has a yellowish, mahogany-brown colour, due to the bile it contains. This secretion becomes excessive, and minute plugs of congealed bile form in the organ, which produces the yellowish colour. This does not occur evenly throughout the organ, and consequently it has a mottled appearance. The gall bladder is usually distended with bile, and its mucous membrance often contains numerous minute hæmorrhages or blood-shot spots. The bile is very thick, has the appearance of "chewed grass," and contains numerous firm, irregular flakes. The spleen also shows marked changes. Normally, this organ weighs from 1½ to 2½lbs., but in cases of Texas fever it is enormously enlarged, sometimes reaching four times is normal dimensions. It is very dark at times, due to the enormous accumulation of red cells and hemaglobin within its substance. Upon cutting into the spleen, the pulpy tissue will sometimes run out as a semifluid blackish mass, due to the breaking down of its structures. In death from the acute type of the disease the kidneys are usually found to be very dark in colour and congested. The blood vessels are engorged with blood, and there is watery infiltration of the surrounding fatty tissue. In the older, more chronic cases the kidneys are paler and somewhat flabby. The bladder usually contains a varying quantity of urine, which may and may not be blood stained. The mucous membrane frequently contains a few minute hemorrhages. No characteristic tissues are found in the stomach, intestines, heart or the lungs.

The course and termination.—The course of the disease depends not only upon the time of the year the infection occurs, but also on the age, strength, and susceptibility of the animals attacked. When mature susceptible cattle contract the disease in the summer months, death usually occurs within a week—generally within three or four days. Texas fever belongs to the group of infectious diseases, and it is a typical example of the few diseases of this class which do not combine the property of being contagious. It is infectious because it is due to the entrance and multiplication of a pathogenic micro-organism within the body, but sick animals, in the absence of ticks, can remain in intimate association with

healthy susceptible animals indefinitely without transmitting to them the disease ; thence it is not contagious. Furthermore, a cow perfectly healthy in appearance may contain in its blood the Texas fever protozoa which, when transmitted to susceptible cattle by the fever tick, will produce the disease. It is certain that the piroplasma are present in varying numbers in the manure and urine of infected animals, and yet susceptible animals have never been known to become affected from grazing over tick free pastures soiled with excrement from sick animals.

Treatment.—Medical treatment of the sick has generally been unsatisfactory, although in chronic cases, and those occuring late in the fall beneficial results have followed. If the animal is constipated, a drench containing 1lb. of Epsom salts dissolved in one quart water should be administered, followed by sulphate of quinine in doses of 30 to 90 grains, according to size of animal, four times a day until the system is well saturated with it. Tincture of digitalis one half ounce, and whisky or alcohol two ounces, may be combined with the quinine, according to indications of individual cases. An iron tonic containing reduced iron two ounces, powdered gentian four ounces, powdered nux vomica two ounces, powdered rhubarb two ounces, and potassium nitrate six ounces, will be found beneficial in the convalescent stage when the fever has run its course. This tonic should be given in heaping tablespoonful doses three times a day in the food.

Good nursing is essential in treating these cases. The animal should be given a nutritious laxative diet, with plenty of clean and cool drinking water, and allowed to rest in a quiet place.

If the stable or pasture is infested with ticks, the animal should be placed in a tick free enclosure to prevent additional infestation with these parasites, and the introduction of fresh infection into the blood. It is advisable, not only before but also during treatment to remove from the sick cattle all ticks that can be seen, as they keep weakening the animal by withdrawing a considerable quantity of blood, and thereby retard recovery.

Prevention.—It is generally accepted that if cattle are entirely free from that species of tick known as Boophilus Annulatus, they can be allowed to mingle with the most susceptible animals without danger. Furthermore, it has been learned from the study of the life history of the cattle tick and from the fact that the tick infects pastures only transiently, never permanently, and will not mature except upon cattle or equines, that its extermination is possible, and that the disease it causes may be prevented.

The various methods with these results in view should be directed toward the destruction of ticks on cattle as well as their eradication from the pastures.

CHAS. E. EARLE.

Black River, April, 1907.

RATS.

THERE is no single animal in the whole world which causes more loss and damage, and is the carrying source of more disease than the rat. It is everywhere; in every country; in fields and dwellings, in the country and in the city, living in the ground, in bushes, in trees, in rocks, absolutely everywhere.

There is no animal like it for vitality, prolificacy, persistency and cunning. It is frugivorous, carnivorous, granivorous, in fact omnivorous to an extent more than in other animal. It is not only what it eats; it destroys, spoils, and pollutes twenty times more—nothing comes amiss to it. It will carry off clothing and curtains in a house to make its own bed, and it will make its nest in a wardrobe among the best clothes. If a house is left unoccupied for a few weeks, when the owners are on holiday, they may find their beds occupied by nests of rats when they return. The best leather harness will be chewed through, just as readily as the binding of the best books. It is a deadly pest to the young of all animals; chickens and ducklings are never safe from it no matter where they are kept. It will eat young pigs, and even attack young lambs. Young children left to sleep alone have been badly bitten by rats; this has been a common occurrence. Grain-growing countries find it their worst pest. It destroys grain when newly planted, in the ear, when stored, when shipped in a ship's hold, on the wharf, at the railway depot.

Here in Jamaica when sugar-cane was our most important crop, some estates paid as much as £300 to £400 a year for rat catching alone. Now sugar estates are almost safe from its attacks, thanks to the introduction of the mongoose. But for this and the throwing up of so many estates, rats finding their most convenient food scarce, would have swarmed everywhere doing great damage to all other crops. Rats are still our worst enemy to poultry, to corn, and especially to coffee, and cocoa crops, the latter of which is of such growing importance. Thousand of pounds are lost by damage to cocoa pods through rats now, but if we had no mongoose to check them, cocoa growers would have to spend as much as cane-growers did in the past, to save their crops; yet no creature is more cursed than the mongoose, simply because it takes chickens which are wandering back from the domicile in the bush. The mongoose is a timid animal, easily kept in check, readily entering traps, hunting solely by day, and falling an easy prey to dogs. He is not responsible for more than a tenth part of the loss of young poultry that the rat is responsible for, and if it were not for him at present, poultry-rearing would be a much more difficult task than it is.

The mongoose lives in the field, and does not venture in the open, but the rat is everywhere, especially in the field, in the

dwelling house, in the poultry house, working at night, stealthy, cunning and audacious.

The scarcity of bird life is charged against the mongoose, yet those birds which build in trees are equally scarce with gronnd birds. We have found nests of rats in nests built by nightingales and blackbirds. Adding insult to injury, the rats, having eaten the eggs or young, occupy the nest themselves. The outcry against the mongoose is foolish, is unthinking, is hysterical.

The rat breeds three or four times a year, producing from six to twelve young, which breed again when they are four months old.

Rats are hard to trap, and are suspicious of poisoned baits. Every householder in Jamaica should wage continual war against rats by keeping cats, setting traps, using Rat Virus, and laying suitable poisons in a suitable way for safety to domestic animals. The out-of-sight trap is the most effective ; but it is necessary to oil the hands with coconut oil when handling it regularly, otherwise rats get wary even of it. The ordinary iron traps should also be used, two different kinds, and whenever rats do not go into one kind use the other trap for awhile, and change the kind of bait. The only safe way of laying poison outside is to use a double bamboo joint—that is with the joint in the middle open at both ends, a bait is placed in each end, and so dogs, cats or poultry cannot get at it. A different kind of bait should be used every week—that is important. Roasted saltfish, or end of bacon, toasted rind of cheese form the best baits, but ripe bananas and a crust of bread often do as well.

Poisoning.—Barium Carbonate.—One of the cheapest and most effective poisons for rats and mice is barium carbonate, or barytes. This mineral has the advantage of being without taste or smell, and, in the small quantities used in poisoning rats and mice, is harmless to larger animals. Its action on rodents is slow but reasonably sure, and has the further advantage that the animal, before dying, if exit be possible, usually leaves the premises in search of water. Its employment in houses, therefore, is rarely followed by the annoying odour which attends the use of the more virulent poisons.

The poison may be fed in the form of a dough made of one-fifth barytes and four-fifths meal, but a more convenient bait is ordinary oatmeal, with one-eighth of its bulk of borytes, mixed with water in a stiff dough ; or the barytes may be spread upon bread and butter or moistened toast. The prepared bait should be placed in rat runs, a small quantity at a time. Elsewhere strychnine may be employed with great success. Dry strichnine crystals may be inserted in small pieces of raw meat, Vienna sausage or toasted cheese, and these placed in the rat runs, or oatmeal may be wetted with a strychnine syrup, and small quantities laid out in the same way.

Strychnine syrup is prepared as follows:—Dissolve an half ounce of strychnia sulphate in a pint of boiling water; add a pint of thick sugar syrup and stir thoroughly. A smaller quantity of the poison may be prepared with a proportional quantity of water. In preparing the bait it is necessary that all the oatmeal should be moistened with syrup. Wheat is the most convenient alternative bait. It should be soaked overnight in the strychnine syrup.

Other Poisons.—The two poisons most commonly used for rats and mice are arsenic and phosphorus, nearly all commercial preparations containing one or the other as a basis. While experiments prove that rats have great powers of resistance to arsenic, it may sometimes be used advantageously as an alternative poison. Preparations of phosphorus sold by druggist are often too weak to be effective; and home made mixtures, when of sufficient strength, are dangerous, as rats may carry the baits into walls and crannies and thus cause fires. For these and other reasons we do not recommend preparations containing phosphorous.

Poison in the Poultry House.—For poisoning rats in buildings and yards occupied by poultry, the following method is recommended:—Two wooden boxes should be used, one considerably larger than the other, and each having two or more holes in the sides large enough to admit rats. The poisoned bait should be placed on the bottom and near the middle of the larger box, and the smaller box should then be inverted over it. Rats thus have free access to the bait, but fowls are excluded.

BEE NOTES.

The falling off of the production of honey to a certain extent in Jamaica is due to the carelessness of the bee-keepers. A few years back every bee-keeper prided himself in having the best Italian queens in his apiary, if he thought he was not sufficiently versed in the art of rearing good queens, he would either import or purchase them from a reliable local breeder, the result was, that the bees kept up their strength during the off season enabling them to repel the attacks of redants, moth-worms and other pests which are liable to destroy any colony of bee not sufficiently strong to protect their combs. Moreover with a good queen she keeps up a force of bees which takes advantage of any bloom of flowers whether in or out of the regular honey season. Of late years whole apiaries have been wiped out by the moth-worms, and starvation has devastated not a few. Why is this? Because bee-keepers of late years have not paid much attention to the most important part of the apiary, and that is, supplying each colony with a young and prolific queen from reliable stock. We all say during the honey season Oh! if all the colonies in the yard did as well as that, or this one, bee-keeping would be a profitable industry. Well you can

make it profitable by getting in all your colonies good queens and at the right time. Not a few bee-keepers have a notion that by depriving a colony of its queen, and allowing the bees to rear a queen of their own it will be as good as can be desired, just there comes in an error, for the first thing the bees will do as soon as they find themselves motherless, will be to take a three to five days old larva from a small queen cell over it, pack in a little §royal jelly of a brownish colour and seal up a couple of days after. In due time an insignificant virgin queen hatches, which five chances out of ten when she leaves the hive for her wedding flight will never return fertilized. If she does, and in several cases she appears very prolific, note that colony ; it will be the poorest during the next honey season. Bee-keeping is similar to other industroys, the farmer procures the best grain for planting, and the cattle and horse-breeders procure the best animals to breed from. It is therefore recommendable that all be-keepers should see to the most important part of the apiary, and that is, in securing the best strain of bees.

F. A. Hooper, Four Paths Apiary.

§Royal Jelly, or the food which produces good queens should be white, and of the consistency of mucilage.

Note.—In-breeding is as fatal to success among bees as it is in the breeding of large stock.—Ed.

POULTRY.

Poultry Fattening.—It should be clearly understood that fattening is an unnatural and critical process, which cannot be carried out for an unlimited period, but which should be carefully and strenuously pursued up to the limit which is deemed advisable. This limit is fixed by the health of the bird, for no bird will bear more than a certain amount of close confinement combined with heavy feeding. About three weeks has been found to be the most suitable period, but some birds are not able to bear the treatment as long as this. During this period the food given should be of a fat forming character.

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Class of Birds Suitable for Fattening.—Before putting a bird up to fatten it should be ascertained whether it is suitable for the purpose, and likely to do well. First of all it must be explained that all birds are not ready for the fattening pens at a given age. It is largely a matter of size, which is dependent upon a variety of circumstances, such as breed, date of hatching, previous feeding, weather, etc. Then again, if the bird has been "pushed along," *i.e.*, well fed from the start, far less fattening is required, and the bird is usually large enough to go in the fattening pens earlier than is the case with a sparsely fed bird, which

has only had sufficient food to develop a good frame without much covering. In this connection it is well to note that a bird fed entirely on grain is not likely to be as forward as a bird fed on grain combined with soft food. Experiment has proved that ground grain is not only more freely eaten, but makes birds plumper than whole grain. All breeds of birds can be fattened, but some breeds lay on flesh far more rapidly than others. The non-sitting breeds, in other words the layers, generally make the poorest table birds. Their surplus food and energy go in the direction of egg-production, and they do not put on much flesh. All good layers are very active birds, and this very activity keeps them lean. They are usually more developed behind, than in the breast parts, whereas the good table bird is generally more ample in front. The breast of the ideal table bird judged from the side should be somewhat of the shape of a parallelogram with rounded corners. It should have a long, deep, broad, nicely-rounded breast, the bone of which is long and straight. It should be small-boned, preferable with white skin and legs.

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UNSUITABLE BIRDS.—Certain birds are unsuitable for fattening purposes. All those intended for the fattening pens must be in a fair state of health, or they will not stand the strain. Very wild birds will not fatten well. Feather-eaters must on no account be placed in the pens with other birds, as they will worry them by continually picking at their feathers, and so the whole pen of birds will be retarded in growth, and food wasted owing to the birds not fully benefitting by it. Fighters must also be excluded.

SELECTION OF COTTON SEED.

FOR some time it has been recognized that the clean, black cotton seeds with a sharp, naked spine, are inferior to the tufted seeds as regards the quality of the cotton lint which is obtained from them, and in the hand selection of the seed, the clean, black type has been discarded as not the best for planting purposes.

In an experiment carried on at Antigua by Dr. Watts, several plots were planted with various kinds of seeds. and he found that when clean, black, or naked seeds were sown, 33.8 per cent. of the same type of seed were reproduced ; whereas, when seeds with a slight amount of fuzz upon them were sown, only 4 per cent. of naked seeds were reproduced.

Information has been received of unselected seed being planted on a certain estate last season, and in the crop which has just been reaped a very high percentage of clean, black seeds has been found. The two types, viz., those with clean, black, or naked seeds and those with tufted seeds, taken from one field, have been examined at the Head Office, with the result that the former gave only 23 per cent. lint to seed, while the latter gave 26 per cent.

The lint from the clean seeds is also inferior, being weaker and more 'wasty' than that obtained from the tufted seeds.

During the coming season, it would be well to continue the same method of general seed selection, viz., discarding the naked, black seed with the spine, which produce a cotton of an inferior quality, and keeping only the seeds with the fuzz at both ends. The latter, if otherwise plump and fully developed, are likely to produce a larger percentage of lint to seed, as well as a higher quality of lint.—" Agricultural News."

COTTON-SEED FOR PLANTING.

We have received a consignment of Sea Island Cotton Seed—which will be disinfected before being sent out, and which we will supply at 4½d. to 6d. per lb. Native seed we can supply at 3d. per lb. School Gardens and anyone wishing to try experimental plots may have small quantities of either free. The St. Vincent seed planted here last year did better than our native seed, but the latter was not selected as it should have been. We had to take what we could get.

This year we shall have both kinds planted side-by-side, and careful watch kept over the growth and results, as it will be of importance to know which gives best results.

The following quotation from the " Agricultural News," (Barbados,) emphasises the importance of making provision for the best seed :—

It should be recognized that seed selection is a matter of the utmost importance in order to maintain the high quality of the Sea Island cotton produced in the West Indies.

The chief point to bear in mind is that the seed selected if taken from plants which are known to have been thoroughly healthy, uniformly prolific, and to have produced lint of good quality.

It is already established that unless great care is taken in the selection of seed, a rapid deterioration in the quality of the lint is likely to take place. The experience of very successful cotton grower is that the selection of seed is the one thing that cannot be over-looked—hence the importance attached to the matter.

The first sign of deterioration in the quality of the lint is the want of uniformity in the length of the fibres, while the general crop is characterised by a preponderence of shorter and coarser fibres.

The ideal kind of cotton plant to cultivate should be pyramidal in shape, about four to five feet in height, free from disease, and bearing a large number of bolls which should be evenly distributed over every part of the plant. The lint should be uniform, i.e., of even length and should be strong, with good body and lustre.

It is urged that seed should be selected only from those plants which have produced the largest quantity as well as the best quality of lint.

COTTON GROWING IN JAMAICA.

THE Commissioner of the Imperial Department of Agriculture for the West Indies sends us the following :—" In the ' Journal of the Jamaica Agricultural Society,' for April, 1907, attention is drawn to what is, apparently, a difference of opinion with regard to cotton grown by Mr. Desporte at Jamaica as between the reports made by the British Cotton-growing Association and that made on a sample sent to this Office and examined by Mr. Thomas Thornton (who by the way, is not a cotton planter at Barbados as mentioned in the Journal) but the expert in cotton matters on the Staff of this Department.

If the two reports are carefully prepared, it would be at once seen that they are almost exactly identical. The best classes of cotton grown this year have obtained prices ranging from 26d. to 31d. per pound. Jamaica cotton, in the instance referred to, was valued to 21d. to 22d. per pound. This exactly confirms the opinion expressed by the Department expert, and considering the circumstances under which the experiment in Jamaica was tried, viz., " that the seed was planted at the very end of the planting season when the soil had only received one rough turning over with the plough, and was then planted in holes made by a hoe," it could not be expected that the cotton would prove of the highest quality.

So far from the reports to which you refer being conflicting and not calculated to give confidence to prospective cotton growers in Jamaica, the facts point in quite another direction, and show that cotton growing at Jamaica, if carried on under suitable conditions, is likely to prove as successful as in any other part of the West Indies.

COTTON IN NIGERIA.

BROADLY speaking, cotton growing, conducted on plantation, Government and native farms under modern systems, at practically all centres along the Niger, has resulted in practical failure, the primary causes being wholesale damage and destruction due to :— " The boll worm" ; and the "cotton blight" or "rust." The climate and the profuse vegetation, with so little land under cultivation, renders the country admirably suited to diseases and pests of all descriptions, unchecked by any artificial means. It is unfortunately a fact that, granted two farms being on the same class of soil, and one be conducted on native principles, the other on modern, the native farm almost invariably proves the more successful under normal conditions, as at present known, providing similar seed be used.

The reason for this, from investigations, can only be attributed to the fact that Southern Nigeria is to an appalling extent infested with "boll-worm" pest, and also that the modern method of growing a "self-crop" in some way influences the attack of "boll-worm," through there being no other crop present for which the "boll-worm" has a better liking. Thus on our plantations, and on native plantations where cotton is cultivated in rows with no other crop intermixed, the "boll-worm" attacks the crop in November, December and January, and if the season happens to be unusually "bad" one for the pest, it completely destroys from 25 per cent. to 75 per cent. of the crop. Mixed crops appear to reduce the attack, perhaps through some crop acting as an attraction to the moth laying the "boll-worm" eggs, and incidentally saving the cotton, precisely as where "trap crops" are utilised on an extensive scale. The trapping system has not proved very successful this year on the plantation, because in the Ishan country generally "boll-worm" has been unusually prevalent.

Unfortunately on poor soil the attacks are the most pronounced when caused by fungoid or insect pests. The "boll-worm" and the "blight" are at the root of the mischief, and as generally speaking, these diseases get a hold on the weakest parts of the crop on a plantation, which, of course, is where the poorest soil exists. Once getting a hold on the crop and reproducing spores of eggs, as the case may be, the malady spreads with extraordinary rapidity."

Now we may take a lesson from the above facts. It has been proved that growing a belt of Guinea corn to windward of the cotton appeared to reduce the attacks of the cotton worm. We thought that probably the moth liked the Guinea corn as its nursery bed better than or at least as well as the cotton, but it may only be that any thickly grown crop will divert its attention.

Therefore it may be wise not only to grow catch crops through the cotton, planting the latter in wider rows ; and also to grow wide belts of Guinea corn between large belts of cotton. Wide belts or fields of Guinea grass between fields of cotton saves the latter from caterpillars. No large area of cotton or cassava should be grown here without regular lines of Guinea corn or even Guinea grass round the cultivations, and belts of it dividing every 20 to 40 acres.

RUBBER NOTES.

THE Annual Report of British Rubber Company's interested in Ceylon and Malaya plantations, the rubber production of which has reached one million pounds already with the prospect of a constant and steady increase, give full details of the number of trees, the amount of rubber produced, followed by statements of proceeds and details of dividends. It is shown that 11,348 trees,

average age seven years, yielded 32,693lbs. of rubber, an average of nearly 3lbs. per tree, selling at an average of nearly 5s. a lb. The dividend per tree works out to nearly 10s. a tree. This calculated on the 8 per cent. basis gives the tree a value of £6 each or between £600 to £1,200 per acre of trees. Each year the trees are expected to increase in yield, and more trees come to an age to be tapped.

Rubber is certainly the most valuable product in Ceylon and the Malay Peninsula to-day.

Trinidad has reached the stage where shipments of 1,000lbs. at a time are made, and which have sold at from 3s. 4d. to 4s. 3d. a lb. This is Castilloa Rubber. In Mexico young plantations of *Castilloa* Rubber are being tapped now, but they seem to yield to a greatly less degree than the Para of Ceylon, as 3,600 six year old trees only yielded 3,000 lbs. of rubber, an average of 1.6ozs. per tree.

In an interesting letter here received from Mr. Robert Thomson, he states that he has just returned from a visit of exploration in Southern Brazil, in the interest of a rubber Company. The particular variety of rubber he was reporting on is Manicoba, and he says it grows in an exceedingly dry and barren district. It grows quickly and yields rubber largely.

VIRGIN RUBBER.—In a letter from Mr. Kay Thomson who writes from the heart of Colombia where he is engaged in rubber enterprise, he says : " The small plantation of Virgin Rubber my father planted twenty years ago has been sold to a Syndicate for £20,000. Some interesting information has come to light through the transaction. All the rubber shipped from this plantation has been sold at 6s. per lb. average, but lately it has been almost 8s. This tree is most extraordinary in its growth here—no rubber can equal it."

Mountain conditions in Jamaica where there is good soil and a regular rainfall would suit it.

COCOA DISEASES.

THE following report, dated 7th May, last, was made to the Board of Agriculture :—I investigated cases of cocoa trees dying in the Islington and other districts visited by me. I think there is no need to go over all the details, as practically the conditions are the same throughout, and the causes contributing to the death of the cocoa trees are :—

(1.) Insufficient drainage of the heavy soils on which the majority of the plants in St. Mary are expected to grow.

(2.) The covering or moulding of the stems of the cocoa trees in the various processes of cultivation of the land.

(3.) Deep planting.

(4.) " Fiddler Bugs."

I have arranged the causes in their order of importance.

I have submitted for your inspection sample of soil, numbered 1, 2, 3, 4.

No. 1, as you will observe, is about as hard, closely packed, devoid of humus, undrained miserable subsoil, as one could find anywhere. It is a wonder to my mind how trees on this land lived as long as they did, it is only explained by the fact that when planted the land was fairly good and well drained; for the last five or six years the drains have been allowed to fill up, with the result that the trees are now dying out as fast as possible.

Some of the roots of the trees on this land show traces of having been eaten by "Fiddler Bugs," but not very many; other trees have the bark perfectly intact, but are dead; all the lower roots of the trees examined on this piece of land were dead, whether eaten by "Fiddler Bugs" or not, the trees had evidently been kept alive only by the upper roots for a long time.

I might here remark that the No. 1 sample of the soil sent you, was taken from only about 5 or 6 inches below the surface, and even after all this drought, when squeezed left a considerable amount of moisture in the hand.

Sample of soil No. 2, you will observe, is a great improvement on No. 1, but as the drains on this land were generally about a chain apart, utterly insufficiently drained, trees dying out in consequence (from "Fiddler Bugs") and generally in a very unsatisfactory condition.

Sample of soil No. 3, you will observe, is a fairly good clay loam subsoil, fairly well drained. Parts of the land with this subsoil had been forked and the trees moulded up, parts had been forked for a long time, the trees planted at fairly correct depths and not moulded; result, moulded trees killed by "Fiddler Bugs," unmoulded trees, all those which I examined, quite healthy, no "Fiddler Bugs" troubling them.

Sample of soil No. 4, taken from the base of a dying cocoa tree; this soil as you will observe shows signs of suffering from mis-directed energy, inasmuch as the stem was packed tightly with the soil to a height of 9 to 10 inches from the crown roots of the the plant, result "Fiddler Bugs."

Mr. Stuart Davis' Cocoa walk at Enfield, he states, was planted from seed, the land has never been forked, ground roots well out of the ground, no "Fiddler Bugs" have ever attacked them.

I have stated in the Report on Pod Diseases that this soil has most perfect drainage. It must not be imagined for one moment that I am advising people to stick seeds into the ground in the way Mr. Stuart Davis did, or to leave them unforked, or not to resort to drainage, but what I do most emphatically contend is, that in order to keep cocoa trees healthy, the natural conditions of Mr. Stuart Davis' land must be imitated as near as possible, and to this end cocoa plants must be planted high, perfect drainage must be secured, without this it is childish to talk about diseases, "Fiddler

Bugs," or things of that sort. If trouble arises after these conditions have been secured, then it is time to begin to hunt for obscure causes, but not before.

With regard to drainage, I am asked times without number, how far apart drains should be for cocoa; it is not a matter of how far apart drains should be for cocoa trees, but how far apart they should be in order to ventilate the land on which it is proposed to grow cocoa; the distance will vary from nothing at all, as in the case of Mr. Stuart Davis, to six feet apart, as in the case of my small settler friend in Westmoreland, Mr. Edward Graham.

W. CRADWICK.

The Island Chemist holds different views. He wrote as follows:—"There is no doubt at all from the evidence of reliable planters that Fiddler larvæ are a serious pest, and attack perfectly healthy cocoa trees. Cultivation and stirring of the soil encourage them by rendering the surface permeable to the adult weevils or the larvæ. Oranges grown from seed in pasture and uncultivated escape, whereas cultivated oranges are very liable to attack. This pest is a specific enemy and must be recognised as such without prejudice to the various cultural requirements of the healthy tree to which Mr. Cradwick rightly attaches great importance."—H. H. COUSINS.

We ourselves have always been of Mr. Cradwick's opinion. We know of a district where there is much rotten wood decaying on the ground in stumps and logs. Fidler grubs are present in great numbers in the soil.

There are citrus, coffee and cocoa trees growing all about, yet we have failed to note deaths of any trees whatever caused by grubs; few trees have died from any cause. But the soil is well drained naturally, and is helped by artificial drains, the soil being stiff and clayey below, but with natural sinks all about to carry off water. The trees are nearly all growing with their top roots free of the soil.

CURING VANILLA.

VANILLA is grown by small settlers in Northern St. Eiizabeth and Westmoreland. It grows so naturally there that it can be seen climbing over all kinds of bushes and trees, and over rock-stones in the pastures.

The Revd. John Maxwell has given us the following description of how he cures his pods:—

"When the ripe beans are brought in I dip them in boiling water and keep them immersed about 40 seconds. Then drain and wrap them in a blanket and put them away in a box or drawer. Next day I spread them out in the sun in the blanket and take them

in while the sun is still hot and the beans are hot, wrapping them again in the blanket and putting away. I continue the process until the beans are wrinkled and of a good colour. It takes some knowledge to know when the beans are at their best when curing. It is an easy mistake, though a bad one, to over-cure them. The beans must not be hard and dry, but pliable. Each bean should be smoothed carefully between the fingers. No oil should be used to the beans on any account; they have enough of their own essential oil."

The dried beans must then be sorted out according to their length, the long tied ones being the most valuable. Beans of the same length should be hid in bundles of twenty-five or fifty, the string or tape being tied close to the end of wet bundles. The bundles can then be packed in closely fitting tin boxes, which must be put in wooden boxes for shipment abroad. Biscuit tins suit, but clean kerosene oil tins, soldered up to exclude air and moisture, are suitable as they can then be packed in their own boxes just as honey is shipped.

LIMES.

LIME trees grow in Jamaica of themselves wild, and unlike orange and grapefruit flourish in very dry districts, and apparently very poor soils. Indeed it is curious that perhaps most of the lime juice we export comes from such districts where limes are grown throughout the ordinary cattle pastures.

But in 1906 we only shipped £3,159 12s. 5d. worth of lime juice. That is a trifle compared to what we ought to be able to sell. Of essential oil of lime and lemon we also only ship a trifle. Yet few lands are so blest in being able to grow limes, lemons and oranges as perennial catch crops among grass.

There are plenty of good pasture lands in good climates where lime trees could yet be profitably grown, especially on the red soils which are the natural home of citrus fruits, but are too far from land and sea to ship oranges and grapefruit profitably.

The following article sent by Mr. Robert Thomson, who has been so interested in and has done a good deal for the development of Jamaica—to Sir Alfred Jones, and forwarded to us, is of interest as showing us something of the prospects for an extended lime industry :—

"*In an otherwise quiet market citric acid is the one interested* feature. The market in this article is in an excited condition, and, especially in view of the demand which will shortly set in for fruit salines and summer beverages, there is every probability of a continued advance in price. To-day English makers are quoting 2s. a per lb. for wholesale orders, but possibly a demand for large quantities could not be conveniently met. At the corresponding period last year the price per lb. was about 1s. 5d., so that the advance which has already taken place is substantial. Foreign makes may be obtained at 1d. or 1½d. below English makers' quotations. The lowest

figure which this product has ever touched is a fraction less than 1s. per lb., while, on the other hand, some thirty years ago it actually advanced to as much as 5s. 6d. per lb. Other products of the lemon are also dearer, and the present quotation for essence of lemon from Messina is 5s. 4d. per lb., but at such a high figure as this business is naturally restricted.

The main cause which has contributed to the advance in price of citric acid is the lateness of the Sicilian lemon crop. In normal seasons some of the lemons are ready for gathering in November, but a correspondent who was in Sicily early in the present year informs us that he saw lemons on the trees in January which were still green. The retarded ripening in the present season follows on a crop which last season was below the average owing to inclement weather. There is thus a shortage in the supply of the fruit necessary for the manufacture of citrate of lime and essence of lemon, while, on the other hand, the demand for citric acid on the part of mineral water manufacturers and of dyers, who employ this product as a mordant, is increasing. A supply which is insufficient to meet the demand is inself a good reason for an enhanced price, but such an economic condition is often aggravated by other complications. In the present case owners of citrate in Sicily appear to have made the best of the opportunity afforded, and, having, found that the banks are willing to make advances on the supplies of this raw material stored with them, are holding for higher prices. The situation is still further strained by the fact that bear sellers of citric acid have been caught, and are obliged to buy on an advancing market. Makers of citric acid seem to be short of raw materials, and, taking all the facts into consideration, there seems to be little likelihood of an immediate decline in value. Indeed, the possibilities appear to lie in the other direction."

EFFECTS OF DROUGHT.

THE Secretary made a report on the effects of the drought made up to 31st May last, but as by the time this Journal appears it would be out of date, we only publish some conclusions drawn, as follows :—

Some lessons to be learnt from the drought are the same as ten years ago, which the Agricultural Society has constantly striven to keep forward since then. These are (1) the safe guard that heavy mulching is to cultivations against the effect of drought. Example.—Six acres of bananas planted in the spring of last year in the hot red soil of Manchester, but heavily mulched with banana trash, kept green and fresh all through the drought, notwithstanding that ponds were dry and pastures bare, all round, and the trees shot fine bunches all looking as well in the drought as bananas in the best alluvial soil in ordinary weather. (2) That the strength

of the weakest link is the strength of the chain—so the amount of stock that can be fed and watered through a drought is the maximum to hold. (3) That each January, reserve fields or paddocks of green forage should be held untouched from October on every penn. Example.—Cattle have been kept alive by cutting breadnut leaves al through the drought. If these trees were systematically planted over all the rockstone parts instead of bush they would be invaluable. There are many other drought-resisting fodders which can also be encouraged. (4) That small settlers in the driest districts should be encouraged to make farine when cassava is plentiful, and store it in barrels; also breadfruit meal; and to grow Guinea corn and cotton.

INSTRUCTORS' DISTRICTS.

No. 1.—St. Mary and Portland, Mr. Wm. Cradwick, Port Antonio.
No. 2.—St. Andrew and St. Thomas, Mr. J. Briscoe, Kingston.
No. 3.—St. Catherine and Clarendon, Mr. J. Hirst, Mocho.
No. 4.—Manchester and St. Elizabeth, Mr. J. Palache, Mandeville.
No. 5.—Westmoreland, Hanover and Western St. James, Mr. H. D. D. Mennell, Darliston.
No. 6.—St. Ann, Trelawny and Eastern St. James, Mr. E. Arnett, Stewart Town.

COMMENTS.

SEED CORN.—The long drought destroyed nearly all the corn planted throughout the Island except in a few cool, damp glades here and there, and in cool mountain valleys where the soil is deep and moist. We have many enquiries for supplies of seed corn for August and September planting. Only a very limited quantity of the best will be available for planting on 15th August (plenty of ordinary corn, however,) but we shall have a good supply of really fine corn, we hope, for planting the end of August and early September which is a good time.

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GUINEA CORN.—We shall also have a small supply of this corn for planting in August and September. It should be grown in all dry districts for once it gets a start it will grow through a very severe drought.

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HOME PRODUCTS.—At one time people in dry districts grew Guinea Corn just as generally as they grew Cassava. Guinea Corn pap was the chief farinaceous food of young children after the mother's milk stage—so we are told—and judging from those who have referred with pride to that fact, it was a satisfactory food. It was home grown grain, a home made product, and could be produced cheaply. Now there seems to be less and less of home industry.

Old-time people are passing away ; their sons and daughters like to be buying, and frequent shop and market too much for that purpose. This is all very well in good times when crops bear well and sell well, and work is plentiful. But in hard times the loss of home raised food crops and home made products is felt badly. If we go on as we are doing at present, soon even the ability to utilise home products will be gone. Grants to Shows encouraged native products to compete—but even grants have been cut off. We have Instructors now—and at last the Island is mapped out so that regular visits may be paid to all districts. And we rely on their efforts to point out the value of having home food-supplies always in store, whether in the ground or in a barrel, in the period from January to June. This is an old story with us—but unappreciated counsel.

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VEGETABLE SEED.—We are now ready to take orders from Branch Societies and others who wish to secure a certain supply of vegetable seeds for planting in October and November.

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POTATOES.—The time has come round again when those who intend planting Irish potatoes the end of October and beginning of November, must give their orders for seed. Last season because of the want of rain right from the time of planting, nearly all the seed planted in the lowlands gave poor results. In the mountains, however, there were fair crops. A deposit of 14s. per barrel must be lodged.

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COTTON.—We have sent communications to all the Branch Societies and most of the School Gardens saying that we shall be glad to supply some Sea Island Cotton seed and some Caravonica Cotton seed for experiments among their members where the locality suits cotton. After having written so much in the Journal about cotton we have been surprised that so many have had to write asking for particulars as to its cultivation ; but it is a pertinent question to ask where the cotton can be disposed of. All that it grown can be disposed of in the seed, in Kingston. We are making one more effort to get a cotton industry established in dry localities, and it is one of the lessons of the drought that plants that stand dry weather well should be encouraged to be grown. Cotton is one of the principal of these. We have had remarkably fine seasons for the last three years, and even very dry districts have had more rain than the average. We trust everyone who has land available will now try a small experiment in growing cotton.

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SEA ISLAND AND CARAVONICA COTTON.—While it would be good for us in Jamaica if we could establish a strong industry in growing Sea Island Cotton, and a good trial should be given again this year, both in large and small acreages, because we do not think that Sea Island Cotton has been given an extended enough trial,

still we are quite prepared to believe that it may not be a successful crop for small settlers who will not give the necessary care and attention that Sea Island Cotton requires. It is a valuable crop when it is grown as it fetches nearly double the price of the next best cotton. We have been watching the growth of Caravonica Cotton and we think it will be an improvement on Egyptian Cotton. It is a strong grower and it is hardy, a prolific bearer, and rather than small settlers should not grow any cotton at all in dry districts, they should try Caravonica. We shall see how this Caravonica Cotton grows, bears and sells, this year, when more widely grown experimentally. A sample of rather poorly grown stuff was valued at 10d. per lb.

We have imported a supply of Sea Island Cotton seed from St. Vincent, taken from cotton which fetched 2s. 5d. per lb. in the market. Why did we import from St. Vincent as there is plenty of native seed available, and the other islands of the West Indies are engaged growing Sea Island Cotton seed also? Because the St. Vincent cotton is such a superior cotton that it has been the object of the Imperial Department of Agriculture to find out what important differences exist between this cotton and that grown in other parts of the West Indies. The most important character in which St. Vincent cotton differs from other cotton is in the smaller production of weak fibres having 10 per cent. less than Barbados Cotton, and 15 per cent. less than Jamaica cotton, so that by importing seeds from St. Vincent we are getting it from cotton plants which have produced the best cotton. We do not know, however, whether these characteristics will be produced here, but we do know that the weak fibres would be re-produced from our Native seed and perhaps to a greater extent. Very little has been done here in the way of making observation in the growth of Sea Island Cotton in different localities—whatever we have done has been in the most casual fashion, but success can never be won in this way. The Board of Agriculture has authorised small experiments at Hope Gardens as follows :—One chain of cotton grown from St. Vincent seed, an equal area grown from native seed. Half a chain of cotton seed which has tufts at the ends, and a half chain of clean seed. It is asserted that the seed that remains with tufts at the end after ginning grows a superior cotton from the plant grown from seeds that come smooth and clean.

St. Vincent Cotton Seed.—This seed had a 93 per cent. germination test in St. Vincent, on arrival here it gave an 85 per cent. test ; and after disinfection gave an 80 per cent. test. That is out of every four seeds three will certainly grow, so that planting three seeds in a hole should give a full stand. We are supplying this seed at 6d. per lb. in small quantities, post free up to 5lbs.; which is enough to plant an acre. In large quantities we charge 4½d. per lb., plus freight. School Gardens can have packets of seed free.

ALFALFA.—If any one wishes to try growing Alfalfa (or Lucerne) we can let him have free some inoculated soil to mix with the seed.

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QUICK INCREASE PEAS.—A correspondent in St. Andrew writing on 13th May, said that he planted Quick Increase Peas in that district a few days after the earthquake, and they had given large returns and were still bearing heavily. And this all through the dry weather.

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GOATS.—The imported pedigree Anglo-Nubian Stud Goat "Orpheus," (No. 1,398 in Herd Book,) now 15 months old is now standing for service at South Pen, Constant Road, St. Andrew, fee 4s. for each nannie. Only approved nannies received. Applications may be made to the Secretary. The dam of this billy gave four quarts of milk per day. At the sale of the late Baroness Burdetts Coutts herd of Anglo-Nubian Goats in England some very large prices were realised. What do our readers think of an average price of £6 3s. 7d. ! The highest price was £16.

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GOATS.—Of the goats we imported, we complained that they were not sent according to our description, which said hornless and smooth-coated. The man who sent them,—one who actually has a flock entirely bred for milk, writes:—"I took, great trouble to select the progeny,—from the very heaviest milkers in England possibly. For instance the hornless nanny was out of a goat that is now giving close on a gallon a day, she was served by a half-bred Anglo-Nubian out of a nanny that gave seven pints a day. Have you any in Jamaica that can do this ? I was offered £3 for her at the Railway Station by some one who *knew*. The Black nanny mother and grandmother were marvellous milkers and her I had served by a Toggenburg and paid 5s. for the fee. The other nanny was out of a nanny I sold to a gentleman at Bournemouth last year for £3 10s., this gentleman I sold 10 to last year, and have his original letter thanking me for the great care in selecting these 10. The darkest of these two billies is out of a nanny I will willingly give £5 for to-day, only I cannot tempt the owner. The other billy I had from an extraordinary milker. As to condition I can prove that all were in excellent condition and perfect health when they left here."

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PRIZE HOLDINGS COMPETITION.—Some public attention has been called to certain circumstances which occurred in connection with the Prize Holdings Competition in the parish of Manchester. Certain prize winners had their places revalued and the taxes increased ; this was put down to the notoriety their holdings gained through this competition, unmindful of the fact that the three holdings referred to were only three out of 35 prize winning holdings, and of the further fact that scores of holdings which were never

entered for the competition at all had been revalued and their valuations increased. These were discovered to be all plain cases of holdings that had been undervalued at the original ingiving. A mistake was made by an over-zealous Revenue Officer in collecting the taxes on the increased valuation of one prize-winner for the current year, when the increased taxes ought not to have been paid until next year. This would probably not have been discovered, or at any rate the individual who was so dealt with would not have had such prompt redress, if he had not been a competitor in the Competition. On the attention of the Collector of Taxes being called to the error he promptly made a refund. There is no danger whatever of the prize winners in the Prize Holding Competition being made to suffer thereby through attention being called to the increased value of their holdings. The Collectors of Taxes are as a rule sympathetic to all efforts to improve the cultivations and homes of the people. They are simply doing their duty—a duty which benefits other taxpayers who have been honest in their valuations---when they discover people who have very much undervalued their places in order to escape a trifle more taxes.

Owing to the drought the judging of the Small Holdings in Hanover which was arranged for August has been postponed until November, when the various holdings will likely be in better order. Notices to this effect have been put up through the parishes. Later the exact time in November will be announced. Immediately Hanover has finished, judging in Westmoreland will begin. Judging in St. Mary will not take place until February. So far the entries are coming in satisfactorily.

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DROUGHT.—Since the beginning of November very little rain has fallen on Jamaica, but if the usual heavy season rains had fallen in May the result, although immediately bad, would not have been too serious. A period of dry weather, when the earth bakes and vegetation is at a standstill, corresponds, to the Agriculturist, to a period of hard frost in the North. It is good for the soil and for the following crops. Immediately rain falls on the parched dry soil, vegetation comes on with a rush, there is a profuse blossoming and generally a large bearing. So that if the May rains had come the Island would not probably have suffered financially. As matters stand, however, the dry weather has caused serious loss in every direction, and to every crop, except coffee, which in the inland mountain districts is a good crop ; in places exposed to the sea breeze, it is like other crops—gone. In dry districts every crop whether annual or half-yearly, whether permanent or catch crop, has failed. Food-crops are extraordinarily scarce all over the island ; only in exceptionally seasonable places, like North Manchester, North Clarendon and Northern St. Andrew, is there a good corn crop. There, it is, like the coffee, good. But worse than the shortage of food is the great lack of water. Rains

that fell in May and June in the most seasonable districts were just sufficient to start a fair growth in vegetation, but have not been enough to fill ponds, tanks, and streams. The dry plains of St. Elizabeth have suffered most of any districts as they usually do in dry weather; but in St. John and St. Dorothy although less outcry has been made, the people are just as badly off. The districts that are usually visited by drought are just those that ought to suffer least, as forearmed should be forwarned. After the drought of 1897, the Agricultural Society acting upon this preached the necessity of safeguarding against drought very hard and followed preaching by practice. The thing to do was to provide crops that would stand protracted drought ; they had them in St. Elizabeth already, but some could be added. Grape vines grew naturally in the Savanahs and bore best in dry weather, but only a few settlers had one in their yards, while there was always eager demand for the fruit offered for sale. Jamaica was not supposed to be a grape-growing country, yet in its poorest districts grape vines were growing practically without effort and bearing good grapes all through the driest weather.

If cassava is plentiful and selling at 2s. per cwt. in December, and in May at 6s. or 7s., and in June cannot be got at all, the obvious thing is to hold a supply over either in the ground where it keeps, or out of the ground baked into bread or made into meal, in which form it also keeps. Water also, was nearly always scarce, but few of the settlers had tanks, yet they were easily and cheaply made of material to be found at hand. The Agricultural Society established a small grape vine nursery on the Savanahs in order to try other varieties than the common black grape, and in order to have a centre to distribute young vines and urge the planting out of grapes to a large extent. They put in a sample, "buck-and-kick" tank made of lime, stone, and red dirt with a catchment of the same material. (This tank, kept in reserve, was still full of water on June 30th, this year, after eight months without rain.) They sent a large iron pan through the dry districts and showed how cassava could be turned into a palatable, nutritious, dry meal that could keep for a year. This could be made equally well on a small scale in a frying-pan. But on all sides these efforts met with apathy in the district meant to be benefitted, and appeared to create amusement, somehow, throughout the rest of the Island. We have been joked about grapes and farine as if they were mythical products, even though we sold both in Kingston. These efforts were carried on with difficulty owing to lack of funds and consequently lack of help. Finally the Board grew tired of spending from their restricted grant even the trifle of 5s. a week—which was the magnificent sum allowed to run the nursery and experiment with varieties of grapes---and conscious of their efforts being reduced to insignificance, and of the utter lack of interest in droughts and its effects, because St. Elizabeth was by then having good seasons stopped doing anything at all. Since then St. Elizabeth has been left alone except for the Prize Holding Scheme in 1905, in which special

prizes were awarded for buildings including tanks, and the appointment of an Instructor last year.

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SUBSCRIPTIONS.—Not a few persons wishing to save their subscription of 4s. per annum to the Society, write to say they have joined a Branch Society for 1s. per annum, and so getting a Journal monthly do not see how they should pay 4s. direct. The reply is that the subscription is to the Society, not for the Journal, and that unless they are direct members they are not entitled to ask the Secretary for information, or to secure seed or ask them to do anything for them direct. Branch members should only get these privileges through their local Secretary. The underneath communication is of another kind. It is humorously illogical :---

"I will resign membership at the end of this year. Really I derive no benefit, and see none to be derived by being a member. I want two or three bushels of Cow Peas—do you sell any now ? I have written to Mr. ——, who I hear has some, but would be glad to hear from you—in case he has none. Can you get me a pure-bred Indian Game Cock—working—or a pair—or even a trio ? I have still those Red Game you got for me, but they fight too much and have run very small. If you can get the fowls at once for me kindly do so. Can you give me Mr. Cradwick's postal address, I wish to ask him to visit the district, and I will put him up."

REPLY.—(We are in receipt of yours of the 6th inst., enclosing your subscription for the current year, and we note that you wish to resign membership at the end of the year because you state you derive no benefit, and can see no use in being a member. At the same time your letter contains no fewer than three requests, one---for Cow Peas, two---for Indian Game fowls, three---for Mr. Cradwick's postal address. We are also disappointed that you consider the Journal of no use to you. We believe you have some interest in Cocoa. The Journal has contained some information concerning it,---some discussions on the attacks of the Orange Weevil on Cocoa trees, and there will be further information about the dying out of cocoa trees in parts of St. Mary. We should have thought this would be interesting and perhaps useful. In reply to query one, we can get you Cow Peas at 10s. 6d. per bushel. Two, we cannot get Indian Game fowls without importing---few people keep them now pure-bred. The fault with the Old English Games is their fighting, but they are active, healthy and fine table birds as a rule. Three, Mr. Cradwick's address is Port Antonio, although as he travels about he may not get letters promptly.---Ed.)

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COMMERCIAL AGENTS.—We do not believe that any country extends the use of its products without the aid of Commercial Agents in the chief markets. There is too much competition, and it is these that push trade, who make trade, and get trade. The Porto Rica Government have for over a year now employed a Commercial Agent in New York to push the use of Porto Rican products in the way of getting Porto Rican Coffee used to a greater extent in the United States. It has been very successful ; tobacco has also been successfully exported to a remarkable extent, and so has fruit to some extent.

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AGRICULTURAL CONFERENCE.—In the first issue of the Journal after the earthquake in our account of the West Indian Agricultural Conference we wrote that Sir Daniel Morris had said that he still

hoped to carry through the Conference for 1908 in Jamaica. We are glad that it is likely to be arranged. At the last meeting of the Board of Management a communication from the Government on the subject was considered, and it was resolved to recommend to the Government that Sir Daniel Morris be advised that it would be a welcome thing for the Conference to be held here. Mandeville was agreed upon as the most suitable place. As Kendal Show was being arranged to be held this year in November, it has been suggested to the Committee that it be held in January at the time of the Conference.

BULLS.

APPLICATIONS are asked for the use of the Bulls in charge of the Agricultural Society as follows :—

1.—The King's Hereford now at Knockalva, Hanover.

2.—The Red Shorthorn now at Mandeville.

3.—The Roan Shorthorn now at Brown's Town.

4.—The King's Shorthorn Bull now at Bog Walk.

These Bulls will be free in October. Terms and condition can be had from the Secretary of the Agricultural Society, Kingston.

BRANCH NOTES.

PEDRO.—The second quarterly meeting of this Branch was held on Thursday evening 20th June. Mr. Julia Simpson, presided, and in his opening remarks, he said, among other things, that the theory of a thing is good, but that alone will not do. Theory and practice must go together if anything good is to be accomplished, especially in agricultural matters. He told the audience how his bananas and coffee had improved by acting on the advice given by Mr. Arnett. Banana trees that were once giving five and six hands are now giving nine hands and upwards. Manure, he said, is not to be despised by the cultivator, but it will be almost useless if not properly applied. After the reading and confirmation of the minutes the recommendations by the Board of Management were dealt with. The necessary steps will be taken in due course to have the Post Office established. It was also thought necessary to have a provision market established in the district, the nearest one to the district being 10 miles away. One was started some time ago, but owing to strong opposition it did not last very long. Now that the opposition is removed, the Society will try its best to have the market established. Very soon a Penny Bank will be started in connection with the Society. It will be not only for the benefit of the members of the Society, but also for the good of the entire district. The Instructor gave a very good lesson on the cultivation of Irish potatoes and exhibited some very good seeds which were readily bought by the members and visitors, the proceeds going to the funds of the Society. The Instructor has secured a good Angora ram for the use of the Society. A hearty vote of thanks was accorded Mr. Arnett, after which the meeting closed.

RETREAT.—The annual general meeting of this Branch was held in the schoolroom on the 5th July. Present: Revd. C. V. Fraser, President; Messrs. E. Mais, J. C. Sharpe, J. Williamson, J. T. Marsh, F. Lindo, F. Ewen, T. C. Dixon, E. Mitchelin, Jos. Williams, A. Saunders, John Murray, Henry Beecher, F. Dill, and many others, including many ladies. The meeting was well attended, and a look of satisfaction beamed out Mr. Cradwick's eyes when he found that unlike his audience at the previous meeting this was an audience worthy of mention. The retiring President begged not to be re-elected, and Mr. Mais was accordingly elected to serve as President of the Society, and was placed in the Chair. Mr. J. I. Dixon was elected Secretary, Mr. J. C. Sharpe, Treasurer, and Revd. C. V. Fraser, Vice President. Committee:—Messrs. J. T. Marsh, F. Ewen, J. Williamson, T. C. Dixon, F. Lindo, Jos. Williams. Many new members were enrolled and subscriptions to the amount of over 30s. were received. Mr. Cradwick spoke on Loan Banks for a short time, but his main object was to give the audience an idea of the meaning and benefit of the Small Holdings Scheme, upon which he lectured for a good while. Owing to the fact that most of the members present were large proprietors, only one member (Mr. Saunders) was able to give his name as a competitor, while many promised to look up a few absent ones who would be able to compete. The Jippi-Jappa hat industry was fully gone into and all welcomed the move. The industry is flourishing in other parts of the island to-day, and would most likely furnish good employment for the young women here.

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SANTA CRUZ.—At the regular bi-monthly meeting of this Branch held on the 16th May, there were present: Revd. S. I. Marson, President, Mr. E. V. Saulter, Vice-President, Mr. B. A. Birthwright, Treasurer, Mr. W. S. Jones, Assistant Secretary, the Secretary, twelve other members and two visitors. After the reading and confirmation of the minutes of the last meeting, communications from Mr. Barclay and Dr. Todd was dealt with. These supplied information which would lead to securing a Boar and a Billy for the use of the Society. The members were presented with a brief statement of the Society's account, after which it was found that the funds available were not sufficient for the purchase and maintenance of any of these animals. It was therefore unanimously agreed to defer the matter for future consideration. The Secretary was instructed to convey the decision arrived at to Mr. Barclay and Dr. Todd. The amount in the Treasurers hand to the credit of the Society next came on for discussion. It was decided to lodge the same in the Government Savings Bank in names of the Treasurer and the Secretary. The date of the next Show now engaged the attention of the members, and after a lengthy discussion it was finally settled to hold the Show on Monday, 11th November, the day on which the King's Birthday is expected to be celebrated. At this stage the Secretary presented and read the suggested Prize List, and a Committee consisting of the President, the two Vice-Presidents, the Treasurer, the Assistant Secretary, the Secretary, Messrs. D. S. Cook, C. P. Jackson, T. B. Tomlinson, T. Darien, F. A. Williams, and C. A. White, was appointed to examine it and to prepare the Rules for the Show.—S. AUG. BLYTHE, Sec.

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BALACLAVA.—After an unhealthy state of inactivity, extending over a period of two years, the Balaclava Branch of the Jamaica Agricultural Society has decided to arise from its lethargy. On Monday, 17th June, Mr. John Thomson Palache, paid a profitable visit to the district. Owing to the inclement state of the weather the meeting was not very largely attended. Mr. C. F. Pengelly, presided. Mr. Palache in his usual eloquent and forceful style, pleaded earnestly for renewed interest in matters agricultural. He carefully explained the Prize Holding Scheme, and commented favourably on the progress made by the peasantry, especially in Southern Manchester. Mr. John Brown's holding, which obtained the maximum number of marks in the recent competition, came in for much eulogy. The lecturer proceeded to give valuable hints on the cultivation of coffee. By illustration on the black board he exhibited the correct

method of topping and pruning. The members were delighted with the lecture. Mr. Palache promised visit in August is looked forward to with great interest. He will then deal with the curing of coffee.—A. A. DORAN, Sec.

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DUAN VALE.—A meeting of this Branch was held at the Wesleyan Chapel, on Saturday, 8th June. The Revd. M. C. Surgeon of Falmouth, one of the Vice-Presidents of the Branch, presided. The Agricultural Instructor, Mr. Arnett was in attendance, and there was a fine turn out of members, which left nothing to be desired in the way of attendance. The President of the Branch, Mr. Conway Whiting was unfortunately absent, but wrote to say he wished the meeting success in its deliberations. The Chairman and Mr. Arnett addressed the meeting, and impressed upon the hearers the necessity of keeping their agricultural efforts going to the fullest extent they were capable of. It was also resolved to try and keep up the meetings regularly.

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LAMB'S RIVER.—A meeting of this Branch was held at Mount Hermon on the 5th inst. There were present: Revd. T. B. Prentice, Vice-President, who occupied the chair in the absence of the President. Mr. H. W. Mennell, (Travelling Instructor,) D. Brown, E. Graham, U. L. Brown, T. A. Malcolm, H. Hart, G. Warburton, J. E. Lawrence, C. Whittingham, R. B. Leslie, Chas. Wedemire, W. Germaine, P. A. Smellie, (Secretary,) and 13 visitors. Minutes of the last meeting were read and confirmed. Miss Shan, the Jippi-Jappa hat making instructor and her class of 23 all busily engaged at work were also present and occupied the far end of the room. It was agreed that Miss Shan teach for 13 weeks instead of 12 weeks. Mr. Mennell was asked to secure some green straw a few weeks hence. Miss Shan asked to be away for a week to see the Doctor as her health is still bad. Her request was granted. It was agreed to procure two blocks for Miss Shan to teach the blocking of hats to her class. The Secretary reported on the plants he was authorized to get at last meeting, St. Vincent yam plants, jippi-jappa plants and sarsaparilla. He was again ordered to secure 475 jippi-jappa plants for members, also to get some vegetable seeds for distribution at next meeting. Mr. Mennell after fully discussing the Prize Holdings Competition Scheme, gave an interesting lecture on Bee-Keeping. The next meeting of the Society will come off on the 13th of September.—P. A. SMELLIE, Sec.

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SAVANNA-LA-MAR.—A meeting of this Branch was held on the 28th July, 1907, at the usual hour, there were present: C. P. Bovell, Esq., President, Dr. Henry Robins, Vice-President, Revd. J. K. Braham, W. G. Mennell, S. D. R. Parkinson, James Ridley, Dr. O. M. Seaton, and A. W. Levy, B.A., Secretary. The minutes of annual meeting on the 17th May, were read and confirmed. The President pointed out that the meeting called for 14th June, could not be held owing to the heavy rain that afternoon. The President reported that Messrs. Aguilar & Bro. had consented to write off amount due to them, as their donation to the Show funds. The Secretary reported payment of prizes, ten shillings, to Mr. Webster of Brownsville, and of affiliation fee of 10s. to Parent Society. The Secretary read His Excellency the Governor's reply to the resolution of welcome sent up by the last meeting, received with satisfaction. New Members were proposed and elected as follows:—By the Secretary, B. A. Kildare, Esq., Savanna-la-Mar. By Dr. Seaton, Messrs. J. G. White, Negril P.O., J. G. Neyler, Little London P.O., G. E. Miller, Ramble P.O. By Dr. Robins, Mr. Archibald Fisher, Savanna-la-Mar, W. E. Tullis, Grange Hill P.O. The Secretary explained that there would be no Journal for June owing to difficulties in printing in Kingston, and that Mr. Barclay had requested him to make this explanation. It was agreed after slight discussion to retain Friday as the day of meetings, 3.30 p.m., sharp. Committee meetings to be the third Friday in each month. Quarterly meetings (at which all members are expected to be present) taking the place of the committee meeting on the third Friday in the last month of each quarter. In all cases meetings made impossible by rain to be held a fortnight later. Travelling Instructor.—Agreed that the Travelling Instructor for the Western

District be written to, that he be informed of the date of meetings fixed for this Branch which it is hoped and expected he will attend from time to time, that he be also informed of the districts which this Branch is interested in and draws its membership from, and which they would like him to visit if only once a quarter, and asking him if he has found it convenient to visit any of them lately. Discussions.—The President having spoken on the advantage of periodical discussions on agricultural matters, it was agreed to ask him to begin with a lecture or paper at the next quarterly meeting, (September 16th) The subject chosen was Bananas.—OSCAR M. SEATON, Assistant Hon. Sec.

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ST. MARY.—A meeting of the Port Maria Branch of the Agricultural Society was held at the Port Maria Court House, on Saturday, the 15th inst., the Hon. R. P. Simmonds, President of the Branch, presiding. There was a large attendance of members. The Secretary stated that he had written from the Agricultural Journal for the month of April, 1906, the minutes of the last meeting held on the 17th March, 1906. The minutes were then read, as well as those of the meeting held on the 23rd May, 1907. The minutes were confirmed. Accounts amounting to 11s. 6½d., were presented and ordered to be paid. A letter was read from the Parent Society asking for information as to the injury done to crops and live stock in the district by the drought, and what effect it is likely to have on next year's crop. The Secretary stated that he had delayed replying to the letter until he should get the opinion of the Branch, as the information which he had gathered on the subject from other sources was rather conflicting. After some discussion it was decided that the letter be replied to as follows :—1.—Fat cattle have fallen off all over the Parish, and in some parts a few have died, as the result of the drought. 2.---Bananas.---The crop has been seriously affected, fruit which should have been fit for market sometimes ago, has been kept back, and as a result, the supply is getting shorter every week. What effect the drought will have on next year's crop cannot be ever approximately predicted. 3.---Canes.---Not effected to any extent. 4.---Coffee.---So little of this commodity is cultivated here, that no opinion can be expressed with regard to it. 5.—Cocoa.—There will be an average crop this year, but fears are entertained that the next crop will be small. 6.—Oranges and Grapefruits.—They are in no way affected. 7.—Coconuts.—While there will be an average crop this year, the crop for next spring will be short, as large numbers of young coconuts are dropping from the trees in consequence of the drought. 8.—Pimento.—The crop is in no way affected. 9.—Ground Provision.—This commodity has always been scarce and dear, but is a good deal more so now, owing to the drought. Very little is cultivated in the district which draws its supply from those parts of the parish bordering on St. Andrew and St. Catherine, in fact most part of it comes from those parishes, and as the cost of transit is necessarily high, owing to the long distance the article is brought, the price is enormous. A good deal of ground provision could be cultivated in the district, and would yield a good profit, but its cultivation is entirely abandoned in favour of banana. 10.—Corn.—Very little grown in the district. The Secretary was instructed to say in conclusion that, besides bananas, cocoa, and cocoanuts, scarcely any other product is grown in the district—a state of things which the Branch would be glad to see removed at no distant date. Letters were read from the President and Treasurer, resigning their position. The Secretary stated, also, that he had been in office since the formation of the Branch in 1899, and that owing to age and other duties he was unable to continue any longer, and would therefore he ask to be relieved, and some one else appointed. Mr. Simmonds nominated Mr. Goffe for the position of President, Mr. H. Jones Dakers seconded. Mr. Goffe said he regretted very much that though he was quite willing to give every assistance to help on the work of the Branch, he did not feel that he could accept the responsible position of President. Mr. Simmonds was thereupon pressed to reconsider his decision to resign, a good many members expressing the opinion that the resignation of this gentleman would mean the dissolution of the Branch. Mr. Simmonds said he was sorry he could not see his way to comply with the desire of the meeting. After some time had

been spent over the matter Mr. Melvill suggested that the election of officers should be deferred till later in the day, so as to allow Mr. Cradwick to proceed with his lecture at once, as that gentleman had to leave by the evening train for Portland. This was agreed to. Mr. Cradwick then delivered a highly interesting and instructive lecture on the diseases of Cocoa and the treatment thereof. At the close of the lecture several questions were asked by the small settlers, and the necessary information given by Mr. Cradwick. A vote of thanks was tendered to Mr. Cradwick who then left the meeting and the question of election of officers was again taken up. After several members had spoken, pressing Mr. Simmonds to reconsider his decision, that gentleman consented to serve as President for another year. Mr. H. Goffe and R. A. Stone were elected Vice-Presidents, Mr. E, T. Bartlett was elected Secretary, and Mr. H P. Ruby, Treasurer and Assistant Secretary. The following gentlemen were elected members of the Managing Committee, namely, Messrs. Ernest Meikle, H. C. Barkham, J. Rampson, Lorine Clarke, J. A. Benjamin, A. Davidson Goffe, P. A. Bovill, H. Jones Dakers, J. D. Brisco, Frederick Grey, Revds. J. H. H. Graham, James Muir and H. Scott. Several members paid their subscription for the year, and the meeting adjourned.

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SANTA CRUZ MOUNTAINS:—The regular monthly meeting of this Branch was held on the 19th July, 1907. The meeting was called to order by the President at 4 p m. There were 30 persons present. The minutes of the May meeting were read and confirmed. Messrs. Chas. Salmon, A. R. Knight and the President reported that they received no Journals for May, June, and July. The Secretary was instructed to let the Secretary of the Parent Society know about it. A letter was read from the Santa Cruz Branch inviting the members of this Branch to compete with them in their Show on the 11th November, provided we extend to them the same privilege at our Show. The proposal was accepted. Another letter containing simular suggestion from the Appleton Society was also read. It was thought that the distance between this Branch and the Appleton Branch was rather great. However, after some discussion it was finally decided to accept the suggestion. Having read a letter from the Secretary of the Parent Society pointing out the difficulties to be overcome in printing the Journals, great sympathy was expressed with the Secretary. A letter was read from the Secretary of the Parent Society in *re* Cotton Seeds. It was decided to send for some seeds to make experiments. A letter was read from the Local Instructor informing the members that he had sent on the Report on the inspection of the holdings for the President's prize. The Report was filed. A letter was read from Mr. John Stewart, the Secretary, encouraging the members to start poultry-rearing, and offering his services in whatever he can do for the Society. The meeting was very grateful to Mr. Stewart for his suggestion and service, and promise to utilize his services whenever practicable. Although a little out of its province yet this meeting fully realizing the sufferings of the peasants in the drought-stricken districts drew up and unanimously adopted the following resolution. Resolved :—" That the Santa Cruz Mountains Agricultural Society respectfully ask the Parochial Board of St. Elizabeth to take steps to secure a more adequate water supply for the parish. We suggest that this can be most efficiently and economically secured by a system of bonuses to those taxpayers in the parish who will take steps to provide tanks for themselves. We consider such a step is preferable to building a few large tanks for the following reasons : 1.---There will be no cost of up-keep, and the tanks will be cared for by their owners 2.---People will not have to travel such long distances for water. 3.---Not all the money will need to be spent at once ; a certain number of bonuses might be given in each year. 4.---And most important of all, it will tend to inculcate and encourage self-help, as nobody will get a bonus until he has done something himself towards making the tank." Mr. Palache was asked and gave a lengthy and exhaustive address on the Management and Care of Horses. Next meeting will be on the 26th August when Mr. Barclay is expected to accompany Mr. Palache. After the usual votes of thanks the meeting ended.---N. E. SEAL.